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FINAL REPORT

STRUCTURAL RESPONSE TO SONIC BOOMS

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FEBRUARY 1965

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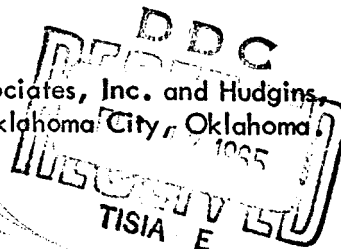
OFFICE OF DEPUTY ADMINISTRATOR FOR SUPERSONIC TRANSPORT DEVELOPMENT

FEDERAL AVIATION AGENCY

WASHINGTON, D.C.

Prepared Under Contract FA-64-AC-6-526 by Andrews Associates, Inc. and Hudgins, Thompson, Ball and Associates, Inc. (A Joint Venture) Oklahoma City, Oklahoma

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February 5, 1965

FINAL REPORT - VOLUME 2 (APPENDIX)
OF
ARCHITECTURAL AND ENGINEERING SERVICES
FOR
STUDIES OF STRUCTURAL RESPONSE TO SONIC BOOMS IN
CONNECTION WITH THE SUPERSONIC TRANSPORT RESEARCH PROGRAM
FOR
THE FEDERAL AVIATION AGENCY

ANDREWS ASSOCIATES, INC. and HUDGINS, THOMPSON, BALL & ASSOCIATES, INC.,
(A Joint Venture)

1330 Classen Building - Oklahoma City, Oklahoma 73106

Contract No. FA-64-AC-6-526

STRUCTURAL RESPONSE TO SONIC BOOMS

VOLUME 2 - APPENDIX

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Excerpts From

REPORT OF ARCHITECT & ENGINEER SERVICES

for

STUDIES OF SONIC BOOM

INDUCED DAMAGE

for the

NATIONAL AERONAUTICS & SPACE ADMINISTRATION

LANGLEY RESEARCH CENTER

LANGLEY STATION

HAMPTON, VIRGINIA

CONTRACT NAS1-1166

Submitted by

CLARK, BUHR & NEXSEN
Architects & Engineers
208 Midtown Building
Norfolk, Virginia

June 25, 1962

SECTION I. FOREWORD

In August of 1961 the firm of Clark, Buhr and Nexsen, Architects and Engineers, under contract with the National Aeronautics and Space Administration, Langley Research Center, began preliminary conferences with representatives of National Aeronautics and Space Administration, the U. S. Air Force, the Federal Aviation Agency, and representatives of the National Opinion Research Center (University of Chicago) also under contract with National Aeronautics and Space Administration to establish criteria for structural investigation of sonic boom damage. Also, representatives of Clark, Buhr and Nexsen researched existing data compiled as a result of sonic boom damage complaints against the Government.

The St. Louis, Missouri area was selected as the site for test flights of supersonic aircraft and field investigations of damage to structures by the sonic boom overpressures. Test flights were flown during the periods of November 6 through 12, 1961 and January 3 through 6, 1962. Representatives of Clark, Buhr and Nexsen were in the target area during the periods of the test flights. An architect, a structural engineer, and a mechanical engineer comprised the investigating team.

The phase of the overall test program that is covered by this report constitutes research of typical sonic boom claims, investigation of alleged damage to structures caused by the specific test flights, compilation and organization of field data into a comprehensive report.

SECTION II. FIELD INVESTIGATIONS

During the two test periods of November 6 through 12, 1961 and January 3 through 6, 1962, a total of seventeen supersonic flights were accomplished in a predesignated flight corridor by test aircraft scheduled by National Aeronautics and Space Administration. The aircraft participating were of two types; one was a B-58 supersonic bomber, and the other was a F-106 fighter aircraft, both supplied and piloted by the U. S. Air Force.

Following is a log of official test flights indicating date, time of day, type of aircraft, altitude, and speed. These test flights did not vary from the predetermined flight corridor by more than one mile.

LOG OF SONIC BOOM TEST FLIGHTS

Date	Time of Day CST	Aircraft Type	Altitude Ft.	Mach No.
6 Nov 1961	2304	F-106	41,000	2.0
6 Nov 1961	2316	F-106	41,000	2.0
8 Nov 1961	1105	B-58	41,000	1.5
8 Nov 1961	1128	B-58	41,000	1.5
9 Nov 1961	1258	F-106	41,000	2.0
9 Nov 1961	1313	F-106	41,000	2.0
10 Nov 1961	1759	F-106	41,000	2.0
11 Nov 1961	0027	B-58	41,000	1.5
11 Nov 1961	0050	B-58	41,000	1.5
12 Nov 1961	0501	F-106	41,000	2.0
12 Nov 1961	0518	F-106	41,000	2.0
12 Nov 1961	1016	B-58	41,000	1.5
12 Nov 1961	1041	B-58	41,000	1.5
3 Jan 1962	2207	B-58	35,000	1.5
3 Jan 1962	2231	B-58	35,000	1.5
6 Jan 1962	2209	B-58	31,000	1.5
6 Jan 1962	2228	B-58	31,000	1.5

St. Louis had been subjected to frequent sonic boom occurrences during the four months preceding and simultaneously with the test flights. Prior to the scheduled test flights, the Air Force policy had been followed, and the populace was indoctrinated as to cause, purpose, and responsibility related to sonic booms. Newspaper, radio, television, and personal appearances by P.I.O. personnel were used to acquaint the residents with the phenomenon of sonic booms and that damage

to buildings can be expected. They were advised of whom to call if damage was sustained and that the Air Force would accept responsibility for sonic boom caused damage.

The test flights were held confidential; however, the area had been thoroughly saturated by sonic boom occurrences and was familiar with damage reporting procedures.

The Judge Advocate General's office at Scott Air Force Base handled sonic boom complaints for the test flights. Scott Air Force Base is located in Illinois approximately 40 miles from St. Louis. Telephoned complaints entailed a long distance phone call. Personnel at the base recorded the complaints on previously prepared forms. A copy of the form is appended to this Section as Exhibit No. 1.

An investigation team, comprised of an Air Force legal officer, a photographer, and an architect or engineer, was relayed the complaint information from the Base so as to arrive at the scene of reported damage as soon as possible. Most complaints, however, were investigated the day following due to the time of the night flights and time lag of complaints.

Clark, Buhr and Nexsen investigation teams made a total of 84 investigations of reported damage from sonic booms specifically related to the scheduled flights. Investigation report forms were used by the architect or engineer to obtain pertinent data on the structure. The form, supplemented by photographs of the reported damage, were used as a basis of analysis. A copy of the form is appended to this Section as Exhibit No. 2.

SECTION III. COMPILATION OF DATA

The data acquired during the field investigations has been analyzed, compiled, and presented on the group of bar graphs that follow. The location and credibility of reported damage have been plotted on area maps for each flight and on a composite map which follow the bar graphs. No credibility has been established for investigations by any source other than by National Aeronautics and Space Administration sponsored investigations.

Figure No. 1 and No. 1A reflects the different types of construction of the 84 structures investigated. The following list shows the breakdown:

<u>No. Investigated</u>		<u>% of Total</u>
Frame	25	29.8
Brick Veneer	26	31.0
Brick Wall	24	28.6
Block	5	5.9
Other	4	4.7

Figure No. 2 and No. 2A reflects the number of stories to structures investigated. The following list shows the breakdown:

<u>No. Investigated</u>		<u>% of Total</u>
One Story	34	40.5
Two Story	43	51.2
Three Story	6	7.2
Other	1	1.1

Figure No. 3 and No. 3A reflects the sub-floor conditions of structures investigated. The following list shows the breakdown:

<u>No. Investigated</u>		<u>% of Total</u>
With Basement	50	59.5
Without Basement	21	25.0
Not available	13	15.5

Figure No. 4 and No. 4A reflects the type of usage of structures investigated.

<u>No. Investigated</u>		<u>% of Total</u>
Residential	68	81.0

(Cont'd)	<u>No. Investigated</u>	<u>% of Total</u>
Resid.-Comm.	8	9.5
Commercial	7	8.9
Garage-Utility	1	1.1

Figure No. 5 and No. 5A reflects the age of structures investigated.

	<u>No. Investigated</u>	<u>% of Total</u>
1-5 years	17	20.2
6-10 years	7	8.3
11-20 years	7	8.3
21-40 years	19	22.6
41-60 years	19	22.6
60-over	15	18.0

Figure No. 6 and No. 6A reflects the interior condition of structures investigated.

	<u>No. Investigated</u>	<u>% of Total</u>
Good	26	31.0
Fair	32	38.0
Poor	26	31.0

Figure No. 7 and No. 7A reflects the evidence of settlement in structures investigated.

	<u>No. Investigated</u>	<u>% of Total</u>
Settlement	49	58.4
No Settlement	18	21.4
Not Available	17	20.2

Figure No. 8, 8A, 9, and 9A reflect the type of damage reported to structures investigated.

	<u>Number</u> <u>Investigated</u>	<u>% of</u> <u>Total</u>	<u>Valid</u>		<u>Doubtful</u>	
			<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Damage structural	5	6.0	1	20.0	4	80.0
Plaster	34	40.3	6	17.5	28	82.5
Glass - 1 pane	16	19.0	5	31.2	11	68.8
Glass - 2 pane	8	9.5	4	50.0	4	50.0
Glass - 3 or more panes	1	1.2	1	100.0	0	0.0

(Cont'd)	Number <u>Investigated</u>	% of <u>Total</u>	<u>Valid</u>		<u>Doubtful</u>	
			<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Cracked tiles & fixtures	4	4.8	2	50.0	2	50.0
Broken due to fall	4	4.8	4	100.0	0	0.0
Broken objects	1	1.2	1	100.0	0	0.0
Appliances	4	4.8	0	0.0	4	100.0
Plaster and glass	6	9.8	3	50.0	3	50.0
Plaster and furnishings	1	1.2	0	0.0	1	100.0

Figure No. 10 and 10A reflects the credibility of complaints investigated.

	<u>No. Investigated</u>	<u>% of Total</u>
Valid	28	33.3
Doubtful	56	66.6

In an effort to keep the statistics as accurate, simple, and easy to interpret as possible, only valid and doubtful categories are used. Possibly valid cases are considered valid.

To clarify the phraseology used to describe the opinions of the investigators, the list and intended meanings of words and phrases used to describe opinions follows:

Valid. In the opinions of the investigators the damage was probably due to, or was triggered by sonic boom overpressures.

Possibly Valid. In the opinions of the investigators the damage may or may not have been caused by sonic boom overpressures. The damage in this case appeared recent and the structure appeared sound and well maintained. While there was no apparent cause for the damage, it was of the type that could be caused by a sonic boom.

Doubtful. In the opinions of the investigators the damage was not due to sonic boom overpressures. In this case a definite cause other than sonic boom was established for the damage claimed, or the damage was not of a type expected to be caused by a sonic boom.

Cognizance should be taken of the fact that the investigations revealed many situations that could not be accepted or denied without question. The judgment of the trained architect or engineer served as the only basis for decision in the possibly valid cases.

Each sonic boom test flight is plotted separately on a map along with the locations of each complaint received for that specific flight. (See figures 11 through 20). Symbols on the map indicate

the credibility, and if investigated by the National Aeronautics and Space Administration engineering investigation team or by the Air Force. The time of flight, type, altitude, and mach number of the aircraft, and flight path also are indicated on the map. A composite map, representing all damage complaints attributed to the 17 sonic boom test flights, is also included.

Since the sonic boom test flights were in most cases run in groups of two, one from 15 to 30 minutes after the first, plottings were made for both flights as one, instead of two separate flights. Persons reporting sonic boom damage to structures often referred to the time of occurrence as from 11:00 - 11:30; thus the reason for considering the two separate flights as one.

From observing the maps and the following table, it is seen that the area over which the aircraft flew and up to 4 miles from ground zero was highly industrial and commercial. These structures for the most part are sturdy but old. Many have been remodeled to come up to par with today's newer buildings, while others are old and in poor condition. In the latter group, any damage a sonic boom would cause is likely to go undetected due to numerous plaster and window cracks that already exist. Also persons notice damage in their own homes more so than they would in an industrial or commercial structure.

The area of greatest investigated complaints was from 4 to 6 miles from the flight track. This is a very old section, and the population density is large.

The zone 6 to 8 miles from the flight track was the next largest for investigated complaints.

In the 8 to 16 mile zones from the flight track the houses are spaced further apart, are newer, and are in a better state of repair than in the 0 to 8 mile zones.

The area to the right of the flight path, looking north on the composite map, has fewer investigated complaints than on the left of the flight path. This area is highly industrial with a low population density. The residences that do exist on the E. St. Louis side of the Mississippi River, from the flight track to 6 miles, are old and run down. Thus any damage caused by a sonic boom would often go unobserved due to numerous cracks, etc., that already existed in these structures.

COMPLAINTS PER ZONE

To the Left of Flight Path Looking North

Miles from Flight Path	Air Force	<u>Investigated by</u>		Total
		CB&N Legitimate	CB&N Doubtful	
0 - 2	0	4	2	6
2 - 4	10	6	10	26
4 - 6	22	5	22	49
6 - 8	16	5	6	27
8 - 10	12	3	4	19
10 - 12	6	1	0	7
12 - 14	3	1	4	8
14 - 16	0	1	3	4

To the Right of Flight Path Looking North

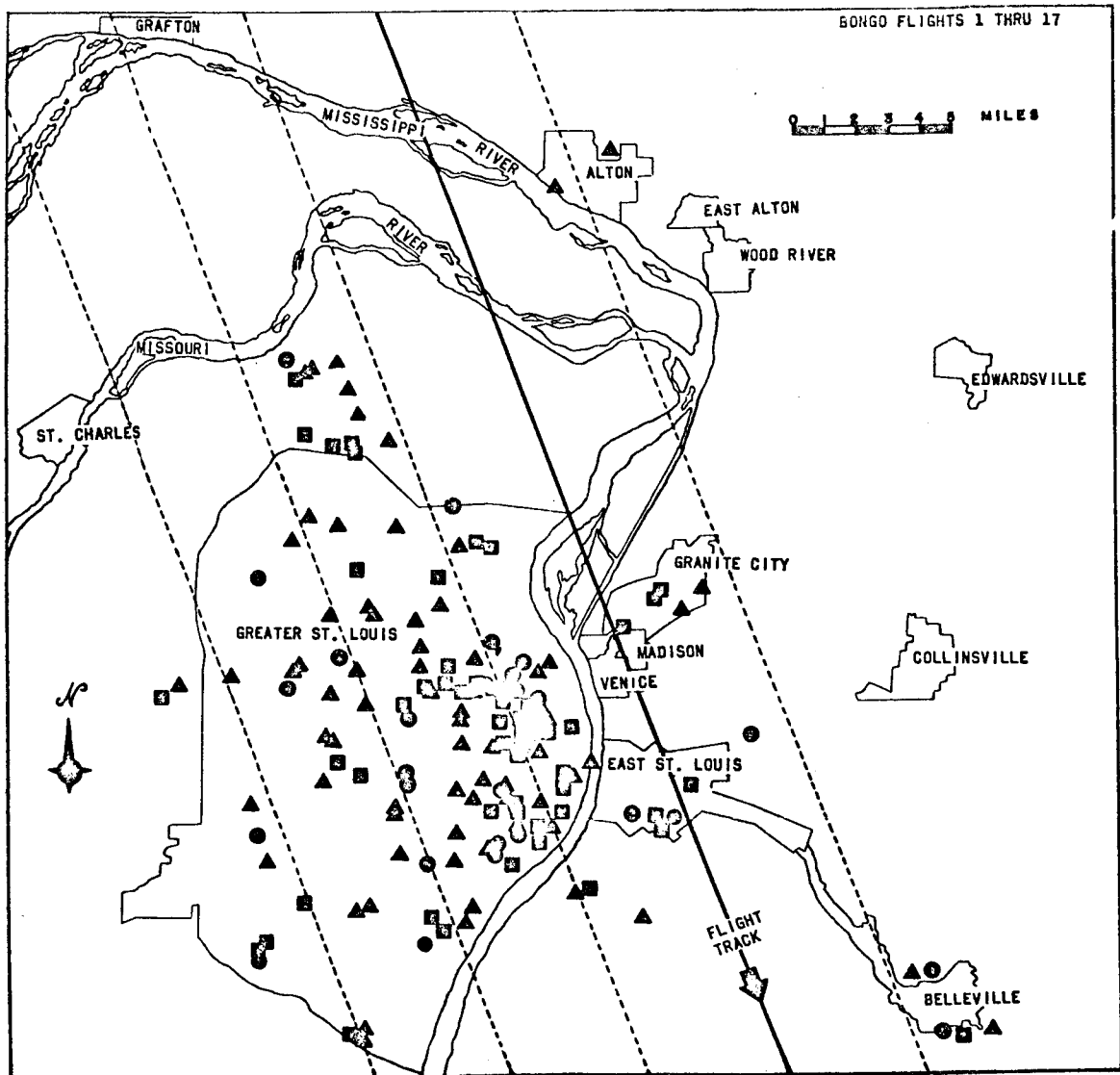
0 - 2	0	0	4	4
2 - 4	3	1	0	4
4 - 6	3	2	1	6
6 - 8	1	0	0	1
8 - 10	0	0	0	0

The maximum overpressure occurs at a distance of 0 to 2 miles from the flight track and, theoretically, should cause the largest amount of damage. The overpressure will generally decrease with distance from the flight track and will generally increase with lower aircraft altitude. Refer to following table of Sonic Boom Overpressures prepared by National Aeronautics and Space Administration.

It is interesting to note that the larger and heavier B-58 flying at the same altitude and at a lesser supersonic speed than the F-106, caused a greater overpressure from 0 to 10 miles from the flight track, and an overpressure approximately equal from 10 to 16 miles from the flight track.

The maps of the individual flights indicate that more damage investigations were made for the B-58, flying at 35,000 feet, than for any of the other flights.

FIGURE NO. 20



LEGEND

- ⊙ - CLARK, BUHR AND NEXSEN INVESTIGATION CONSIDERED VALID
- ◼ - CLARK, BUHR AND NEXSEN INVESTIGATION CONSIDERED DOUBTFUL
- ▲ - U.S. AIR FORCE INVESTIGATION

SECTION IV. DISCUSSION OF RESULTS

The results of the investigations of the sonic boom test flights and conferences with cognizant and interested parties have yielded several pertinent observations which are discussed briefly hereinafter.

A. From the field investigations and analyses, it is apparent that the reported damage normally occurs at stress points within a structure. Built-in stresses due to drying out of green lumber, hydration of cementitious materials, and poor quality of workmanship create a potential failure of building materials. This potential exists in varying degrees in all structures, and failure can be triggered at any time. The overpressure of a sonic boom has the capability of this triggering action, as has passing vehicular traffic, thunder storms, heavy falling objects, and average household operations. Types of damage are specifically analyzed as follows:

1. Plaster.

The overpressures from the scheduled supersonic test flights described herein were not of a sufficient magnitude to cause damage to sound plaster areas. It is conceded that the experienced overpressures have the capability of triggering cracking or complete failure at a stressed portion of plaster and/or causing an existing crack to become more extensive. Also, portions of plaster that are weakened by wetting or improper installation, or portions where the lathe has deteriorated were observed to have fallen. This condition possibly could have been triggered by a person walking on the floor above the weak portion of plaster. Generally, where fallen plaster was observed, there were judged to be other contributing factors and, therefore, the damage was considered to be in the doubtful category. Plaster cracking was found in some cases where no contributing factors were judged to exist and thus the damage was considered to be valid or possibly valid.

2. Glass. (Windows, show windows, and storm windows.)

The overpressures from the scheduled supersonic test flights described herein were not of a sufficient magnitude to cause good quality, properly installed glass to break. It is conceded that overpressures have the capability of triggering cracking or breaking of glass that was stressed by improper installation, building settlement, previous damage or poor quality. Often glass cracks and breakage were judged to be associated with stress concentrations. Such stress concentrations may have been improper installation of glaziers points, glazing beads, faulty puttying, or to a flaw in the glass itself. A window set with no provision for flexing is more likely to crack than a window set in mastic which can deflect with the overpressure and thus not experience the stresses that a rigidly installed window would.

In some instances the structures investigated had an inner window cracked, whereas the storm window was not damaged. The sonic boom overpressure possibly caused the storm window to deflect, compressing the air in the space between the window and storm window to transmit the impact force to the inner window. The inner window, which is generally set more rigid than the storm window, and is not as flexible, could conceivably crack.

3. Furnishings.

In several complaints persons claimed that the sonic boom had caused damage to movable furnishings in their homes. Some persons claimed broken vases, fallen pictures, and fallen wall racks. In observing the above claimed damage, it was noticed that in most cases the fallen objects were insecurely attached to the wall. Any jolt or jar caused by persons in the immediate area of the fallen object could have caused the objects to fall. Objects which fell from shelves or window sills were obviously placed very close to the edge of the shelf or sill. Again, any jolt or jar made in the immediate area could cause the objects to fall.

4. Cracked Water Closets.

On observing several cracked water closets, it is our opinion that the sonic boom had no effect on the cracking of these objects.

5. Appliances.

The appliances that were claimed to be damaged as a result of test flight sonic booms were television sets and hot water heater thermostats.

On several occasions television sets were claimed to have failed as a result of a sonic boom. Upon investigating, it was learned that antenna, both "rabbit ears" and roof top type, had fallen from their normal position.

The thermostats on the hot water heaters failing could not be attributed to sonic booms.

6. Structural.

Since the design of walls and roofs of buildings are based on building code requirements requiring capability of resisting a minimum of 20 pounds per square foot, wind load, and the test flight overpressures were relatively small (under 3 psf), it is improbable that any structural damage to buildings that were properly constructed and well maintained was a result of sonic booms. The overpressures

could possibly have triggered cracking at a stressed condition in a structure and/or caused an existing crack to open up or grow longer.

B. Representatives of Clark, Buhr and Nexsen observed effects of sonic boom at approximately ground zero located at a likely spot in a new supermarket parking lot. The store had six large show windows of 1/4-inch thick plate glass set in aluminum frames. Window size was approximately 9 feet by 12 feet each. These windows deflected with the wind which did not exceed 20 mph and very noticeably deflected with automotive and truck traffic from the street approximately 150 feet away.

Representatives of Clark, Buhr and Nexsen observed the contrails of approaching aircraft which passed almost directly overhead. The sonic boom overpressure caused the show windows to deflect in unison, and they reverberated for approximately 3 seconds. It was interesting to observe, however, that the visible deflection did not exceed by very much the deflection caused by trucks on the highway.

C. It is the opinion of the investigators that the public information policy of the Air Force caused a high percentage of complaints. In the area around Norfolk, Virginia, booms occur with somewhat less frequency than in the St. Louis area, but only 5 complaints have been reported to the Fifth Naval District.

This indicates that the publicity by the Air Force caused an unusual number of complaints to be reported. This also allows persons who want to report doubtful claims to have an established basis for Government responsibility.

Some persons reported damage with no basis of sonic boom causation. Other persons reported damage and had no intention of making a claim. Had the publicity not been stressed, a large portion of the persons would not have complained.

D. As a result of at least 76 supersonic flights (including Air Force training missions and the special flights of these studies) experienced during a six month period in the greater St. Louis area of about three million people, approximately 2300 complaints have been registered. The percentage of complaints per capita are less than one tenth of one percent.

APPENDIX NO. 2

SEISMOGRAPH DISCUSSION

As can be seen from the seismograph recordings in the appendage, sonic boom cannot be detected by the instruments situated at St. Louis University Technical Institute. The recordings only show background noise, quarry blasts, and earthquakes.

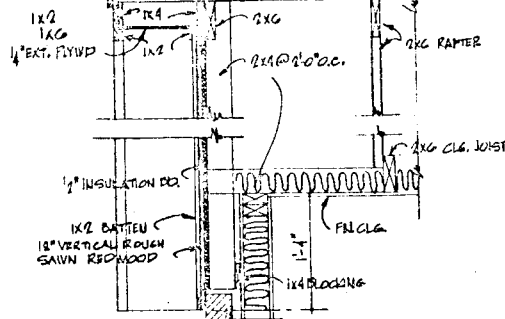
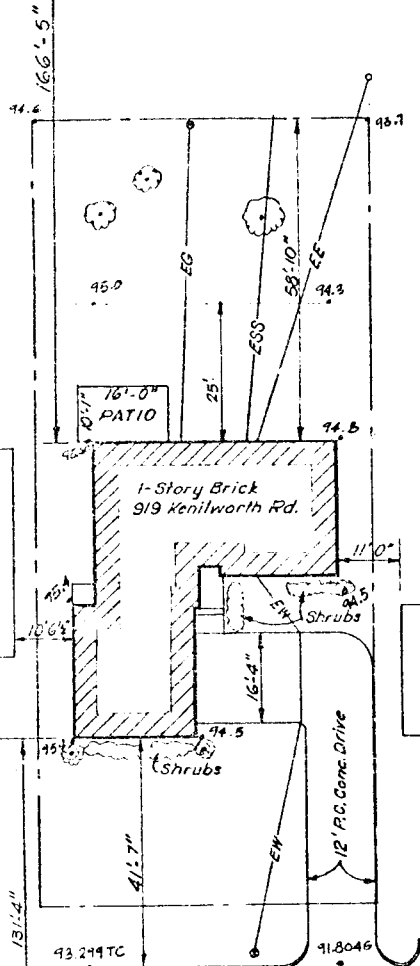
In an explanation of the recordings to a representative of Clark, Buhr and Nexsen from personnel at St. Louis University, it was pointed out that the reason sonic booms could not be recorded by this seismograph was due to two factors, one being the sensitiveness of the instrument being too low for the high frequency booms, and the other being that the source was removed from the earth. Although nuclear explosives in the atmosphere can be detected on the seismograph, this is due to the extremely large magnitude of the explosion. Sonic booms have also been reported, but only on more sensitive instruments than the one at St. Louis University.

Quarry blasts in some cases appear very close to sonic boom times, but persons experienced in reading the data pointed out that this deviation from the normal has a definite signature which conforms to other quarry blasts.

As pointed out by personnel at St. Louis University, quarry blasts are known to cause some structural damage in the vicinity of the quarry blast.

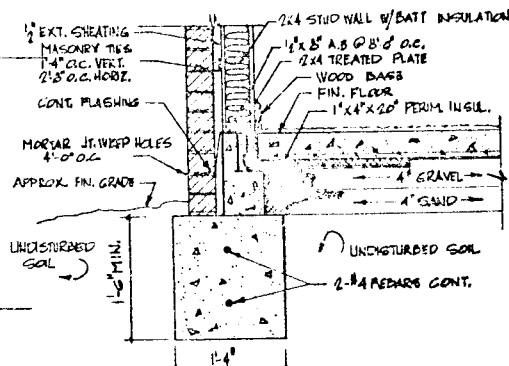
PLOT PLAN

SCALE: 1" = 20'



3
AI **GABLE END & RAKE**
SCALE: 3/4" = 1'-0"

4
AI **ROOF**
SCALE: 1" = 1'-0"

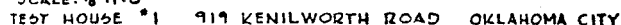
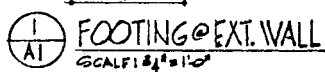
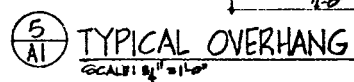


1
AI **FOOTING @ EXT. WALL**
SCALE: 3/4" = 1'-0"

2
AI **INTERIOR**
SCALE: 1" = 1'-0"

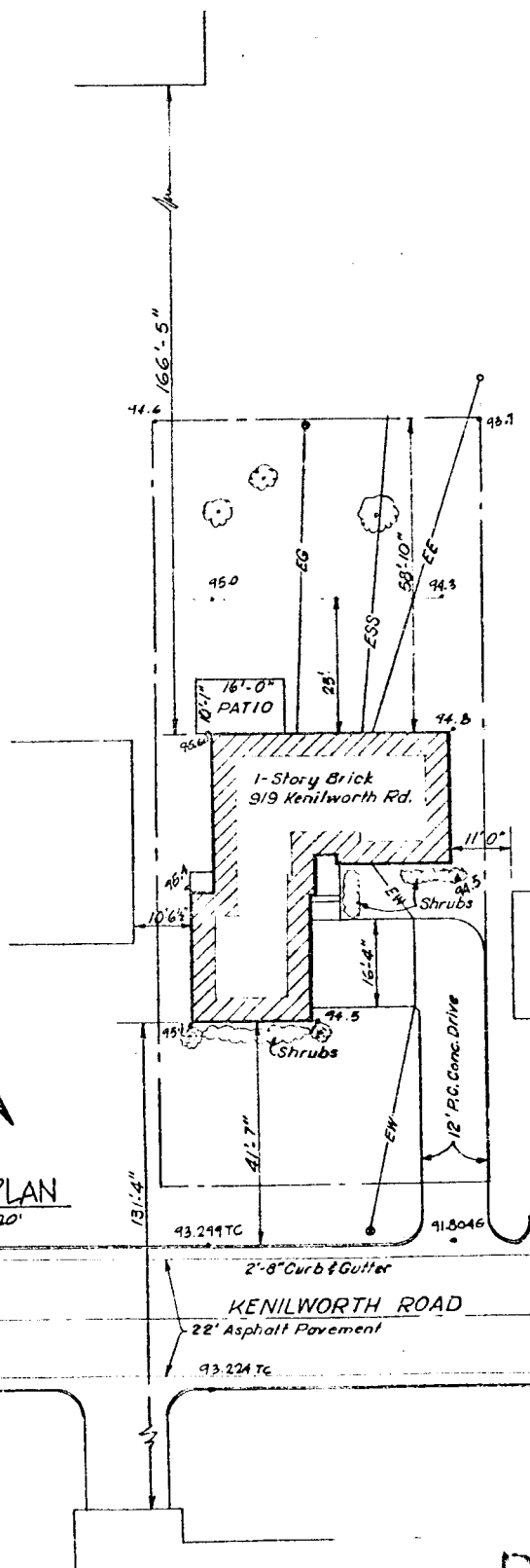
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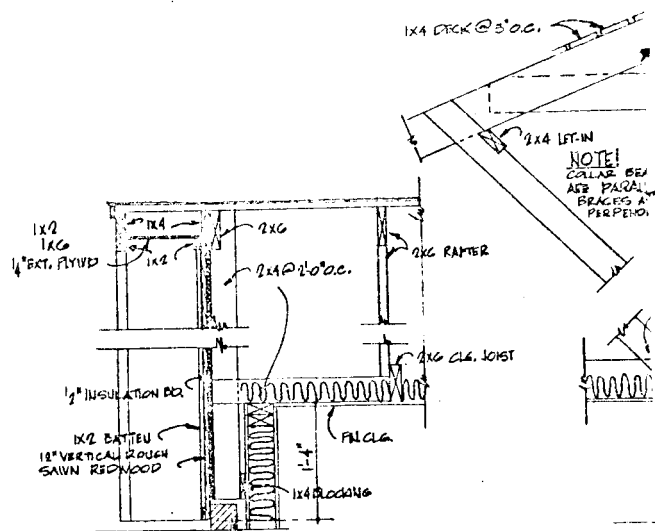


PROJECT NO. 989	S.G.T. PROGRAM TEST STRUCTURE FOR		PROJECT NO.
FILE NO.	FEDERAL AVIATION AGENCY-OKLAHOMA CITY		
<i>Hudgins, Thompson, Ball and Associates, Inc.</i>			
DRAWN BY ER	ARCHITECTS - ENGINEERS - PLANNERS		A-1 OF FOUR
TRACED BY	1411 CLARKSON BLDG. 700 MAYO BLVD. OKLAHOMA CITY, OKLA. OKLAHOMA		
ENGINEERED BY			

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 1 of 30
TEST HOUSE NO. 1 (1 of 6)

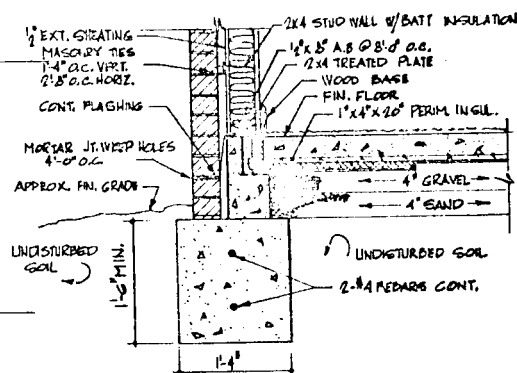


PLOT PLAN
SCALE: 1"=20'



3
AI **GABLE END & RAKE**
SCALE: 3/4"=1'-0"

4
AI **R/X**
SCALE:



1
AI **FOOTING @ EXT. WALL**
SCALE: 3/4"=1'-0"

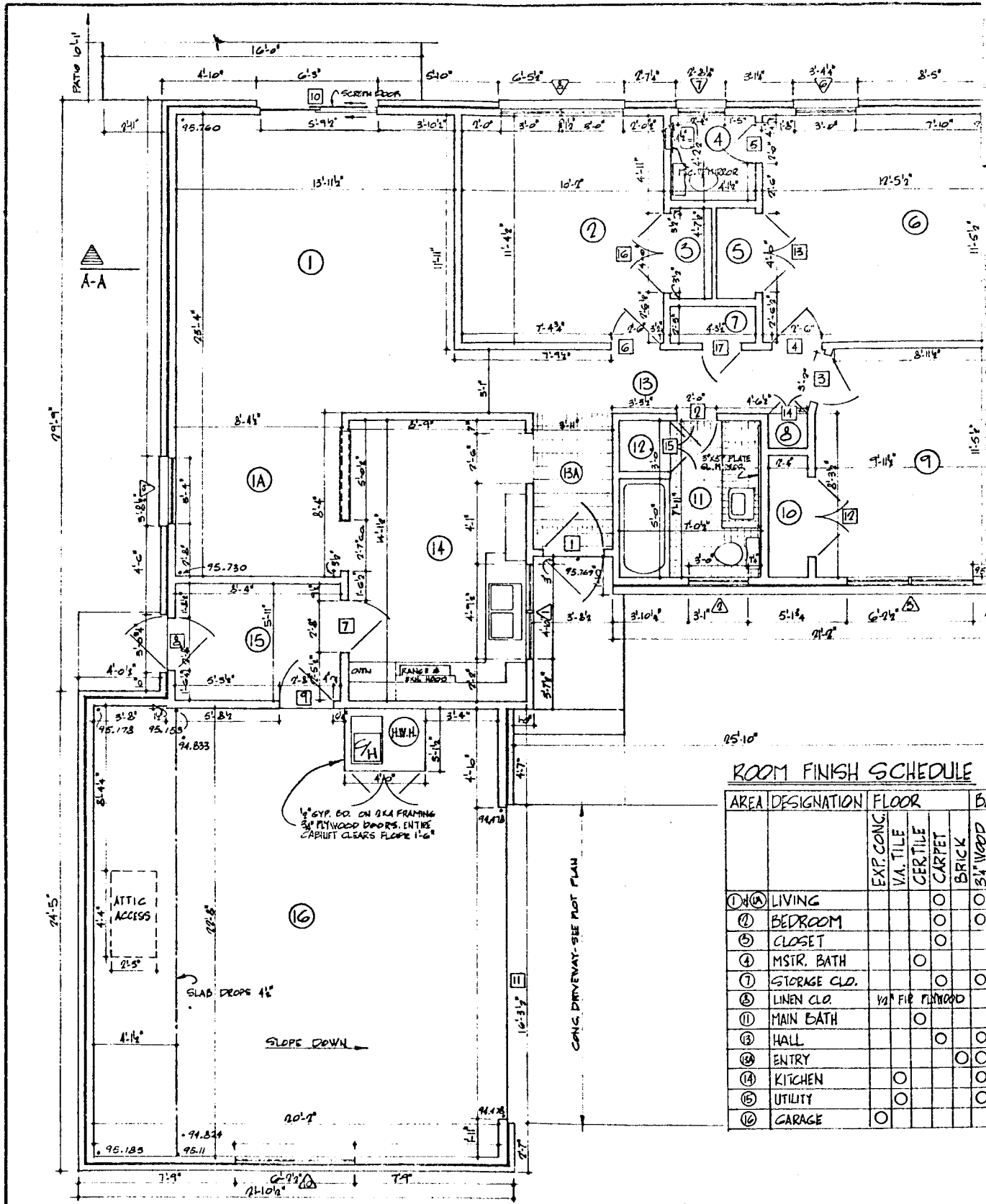
2
AI **INT. LOA**
SCALE
NOTE
ASSUM

3
AI

4
AI

A

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 2 of 30
TEST HOUSE NO. 1 (2 of 6)

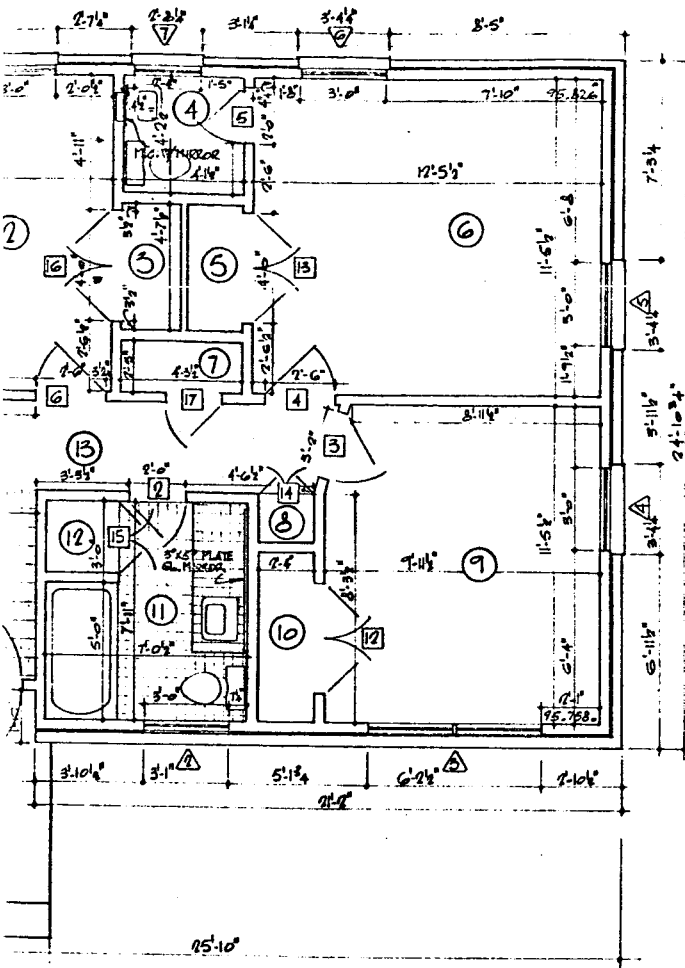


ROOM FINISH SCHEDULE

AREA	DESIGNATION	FLOOR				
		EXP. CONC.	VA. TILE	CERTILE	CARPET	BRICK
①	LIVING					
②	BEDROOM					
③	CLOSET					
④	MSR. BATH					
⑦	STORAGE CLO.					
⑧	LINEN CLO.	1/2" FIR				
⑪	MAIN BATH					
⑬	HALL					
⑭	ENTRY					
⑮	UTILITY					
⑯	GARAGE					

FLOOR PLAN
SCALE 1/4" = 1'-0"





DOOR SCHEDULE

NO.	SIZE	TYPE	MATERIAL	COMMENTS
1	3'0" x 6'0" x 1 1/2"	H.C. SLAB	W. PINE	APPLIED HOLDING OUTFRONT 1 1/2" W.P. SCREEN DOOR
2	2'0" x 6'0" x 1 1/2"	H.C. SLAB	MAHOG.	
3	2'0" x 6'0" x 1 1/2"			
4	2'0" x 6'0" x 1 1/2"			
5	2'0" x 6'0" x 1 1/2"			
6	2'0" x 6'0" x 1 1/2"			
7	2'0" x 6'0" x 1 1/2"			
8	2'0" x 6'0" x 1 1/2"	N.D. 549	W. PINE	VISION LITE 1 1/2" W.P. SCREEN DOOR
9	2'0" x 6'0" x 1 1/2"	H.C. SLAB	MAHOG.	
10	6'0" x 6'0" x 1"	EXTR. ALUM.	ALUM. GLASS	BT-PASSING 2 PANEL
11	7'0" x 16'0" x 1 1/4"	OVERHEAD	W. PINE	4-SECTION 3 1/2" LITE
12	2'0" x 6'0" x 1 1/2"	H.C. SLAB	MAHOG.	PAIR
13	2'0" x 6'0" x 1 1/2"	"	"	PAIR
14	CABINET DRS.	3/4" PLYWD.	W.P. OR FIR	
15	"	"	"	
16	2'0" x 6'0" x 1 1/2"	H.C. SLAB	MAHOG.	PAIR

METHOD OF MEASUREMENT
HORIZONTAL: JAMB TO JAMB
VERTICAL: HEAD JAMB TO FINISH FLOOR

WINDOW SCHEDULE

NO.	SIZE	TYPE	MATERIAL	COMMENTS
1	2'4" x 3'8"	D.H.	W. PINE	PAIR-GLITE/6 LITE W/1 1/2" MULLION
2	3'0" x 3'8"			6 LITE/6 LITE
3	3'0" x 5'8"			PAIR-GLITE/6 LITE W/1 1/2" MULLION
4	3'0" x 4'6"			6 LITE/6 LITE
5	"			"
6	"			"
7	2'4" x 3'8"			"
8	3'0" x 5'8"			PAIR-GLITE/6 LITE W/1 1/2" MULLION
9	3'4" x 4'2"			6 LITE/6 LITE
10	6'0" x 7'4"	FIXED		12 LITE

METHOD OF MEASUREMENT
HORIZONTAL: JAMB TO JAMB
VERTICAL: HEAD JAMB TO SILL

ROOM FINISH SCHEDULE

AREA	DESIGNATION	FLOOR				BASE			WALLS			CLG.		COMMENTS	
		EXP. CONC.	V.A. TILE	CER. TILE	CARPET	BRICK	3 1/2" WOOD	CER. TILE	NONE	3/4" QTR. RD.	1/2" GYP. BD.	CER. TILE WAINS.	PAPER		1/2" GYP. BD
① & ⑩	LIVING				○		○				○		○	○	
②	BEDROOM				○		○				○			○	AREAS ② & ⑩ SIM.
③	CLOSET				○					○				○	BUILT IN SHOE RACK - AREAS ③ & ⑩ SIM.
④	MSR. BATH			○				○			○	○	○	○	4'-2" HIGH WAINSCOT
⑦	STORAGE CLO.				○		○				○			○	
⑥	LINEN CLO.		1/2" FIR	PLYWOOD					○		○		○	○	FINISH JOB BUILT CAB. - AREA ② SIM.
⑪	MAIN BATH			○				○			○		○	○	WAINS. HT - 6'-0" TUB, 4'-2" WDW & VANITY
⑧	HALL				○		○				○	○	○	○	
⑫	ENTRY					○	○						○	○	SMOOTH FACE RED PAVR BRICK IN FLOOR
⑭	KITCHEN		○										○	○	
⑮	UTILITY		○				○				○			○	
⑬	GARAGE	○							○		○	○		○	

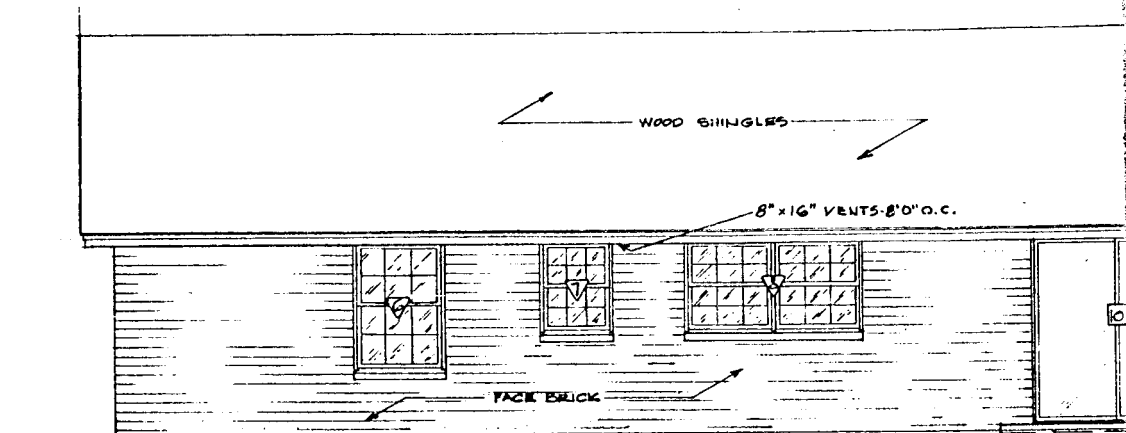
TEST HOUSE #1 919 KENILWORTH ROAD OKLAHOMA CITY



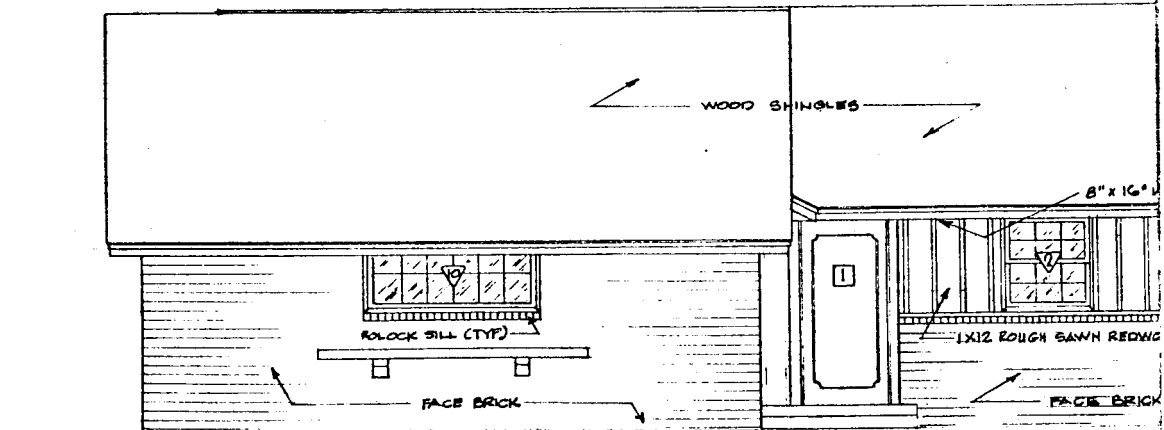
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PROJECT NO. 989		SST. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY - OKLAHOMA CITY	
FILE NO.	DR. BY B.R.	ARCHITECTS: Hudgins, Thompson, Bell and Associates, Inc.	
DATE JANUARY 30, 1964	TRACED BY	1411 CLARKSON BLVD. 700 MAYO BLDG. TULSA, OKLAHOMA	
CHECKED BY		SHEET NO. A-2	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 3 of 30
TEST HOUSE NO. 1 (3 of 6)

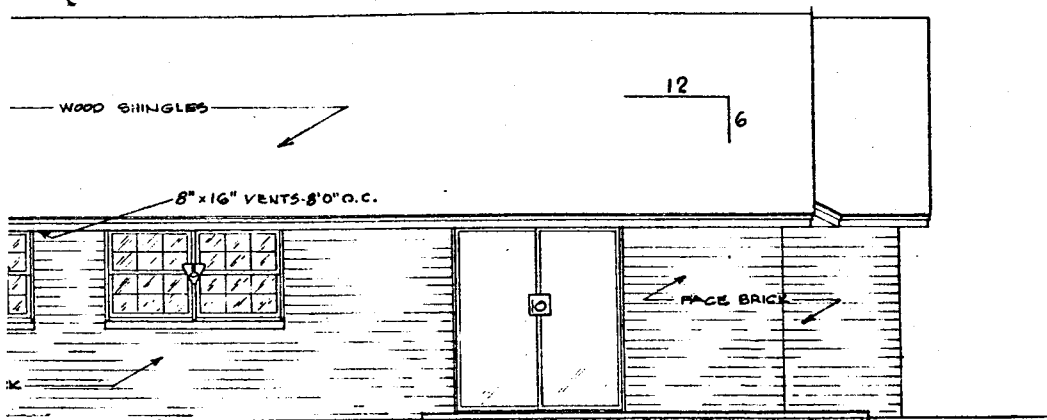


NORTH ELEVATION

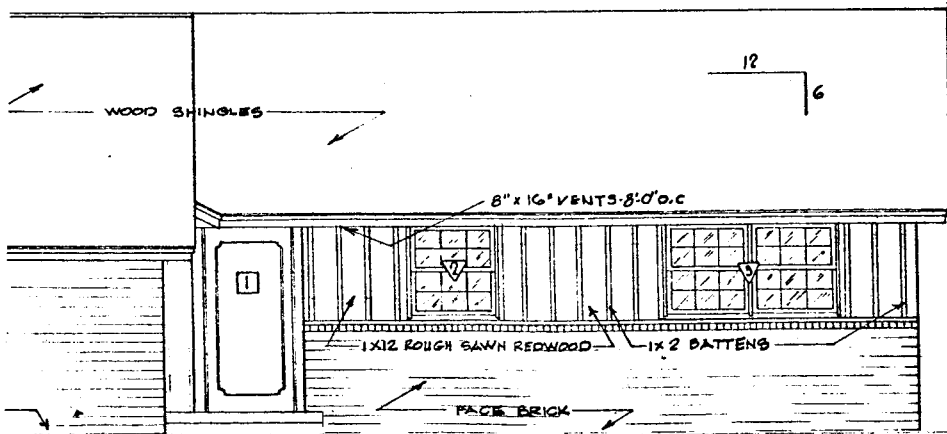


SOUTH ELEVATION

A



NORTH ELEVATION



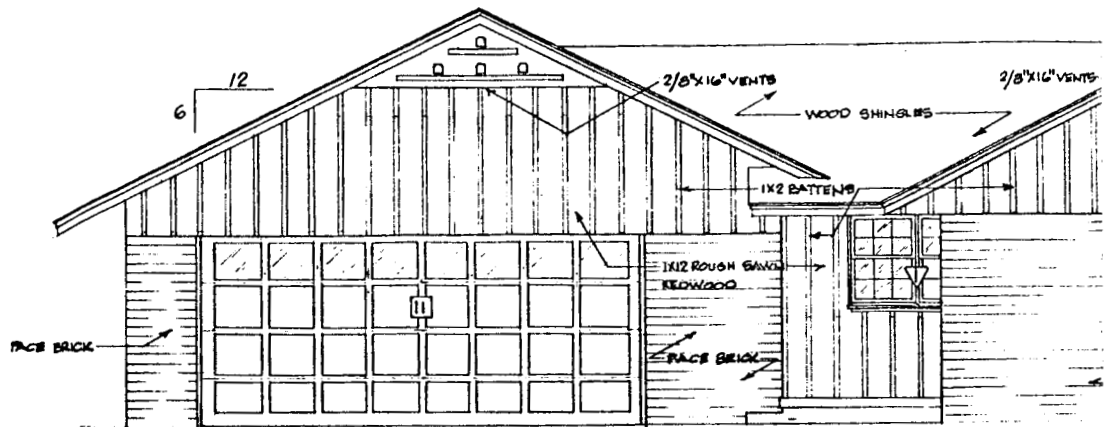
SOUTH ELEVATION

TEST HOUSE #1 919 KENILWORTH ROAD OKLAHOMA CITY

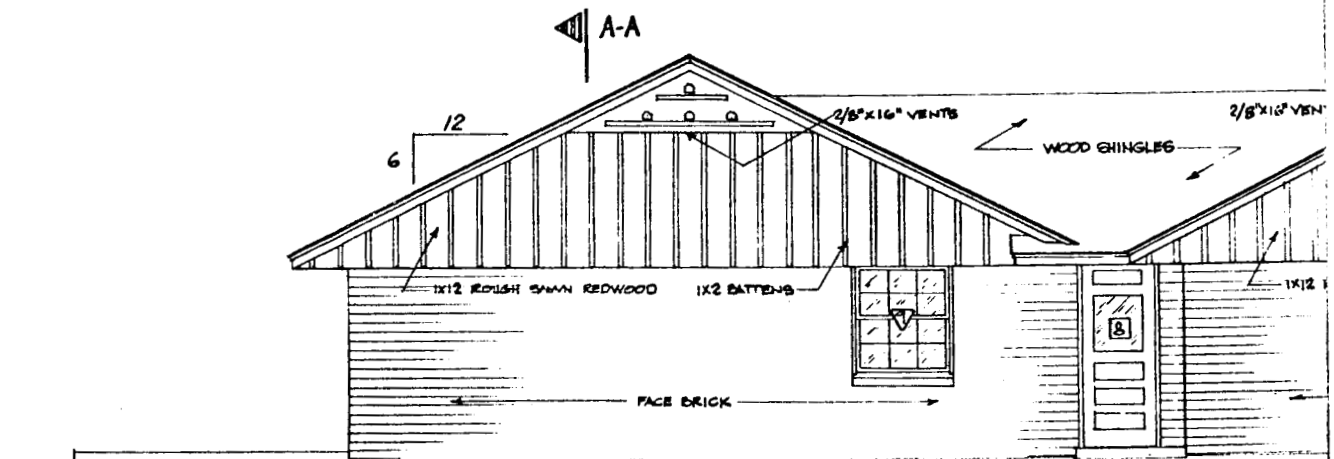
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PROJECT NO. 989		SST. PROGRAM TEST STRUCTURE	
FILE NO.		FEDERAL AVIATION AGENCY-OKLAHOMA CITY	
DRAWN BY B.R.	ARCHITECTS - ENGINEERS - PLANNERS Hudgins, Thompson, Ball and Associates, Inc.		SHEET NO. 1-3
TRACED BY	1411 CLASSEN BLVD. OKLAHOMA CITY, OKLA.		or P.O. 118
CHECKED BY	700 MAYO BLDG. TULSA, OKLAHOMA		
DATE JANUARY 20, 1964			

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 4 of 30
TEST HOUSE NO. 1 (4 of 6)

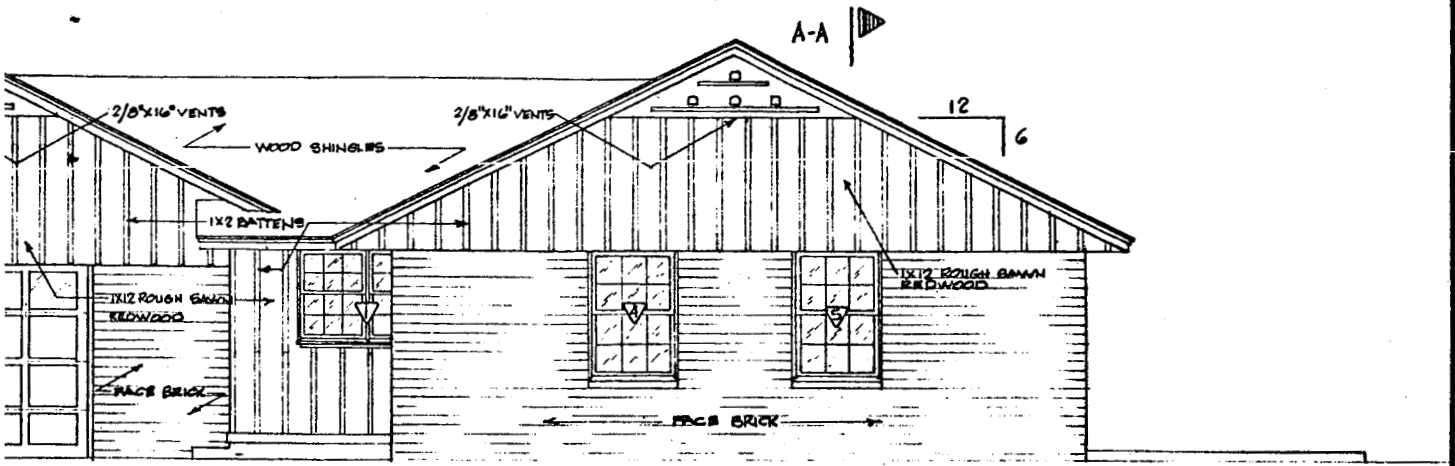


EAST ELEVATION

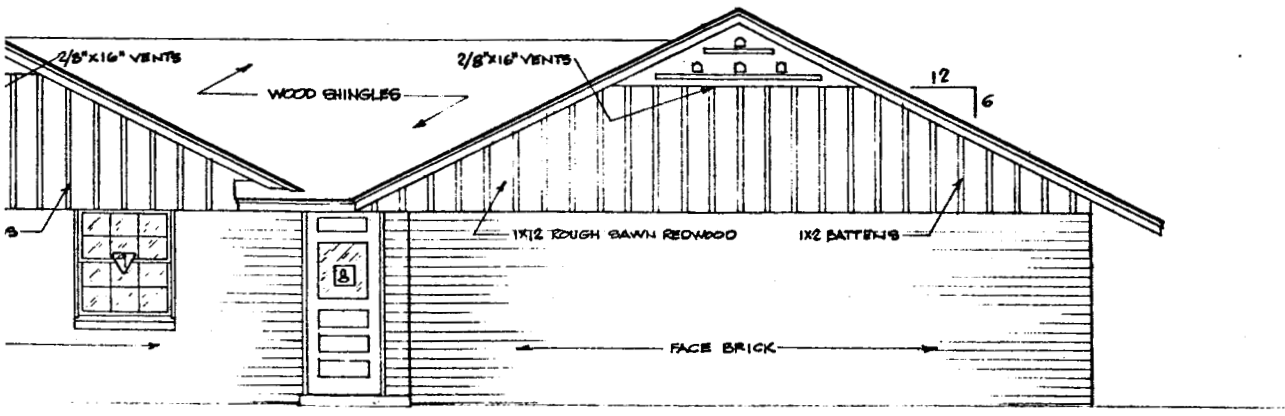


WEST ELEVATION





EAST ELEVATION

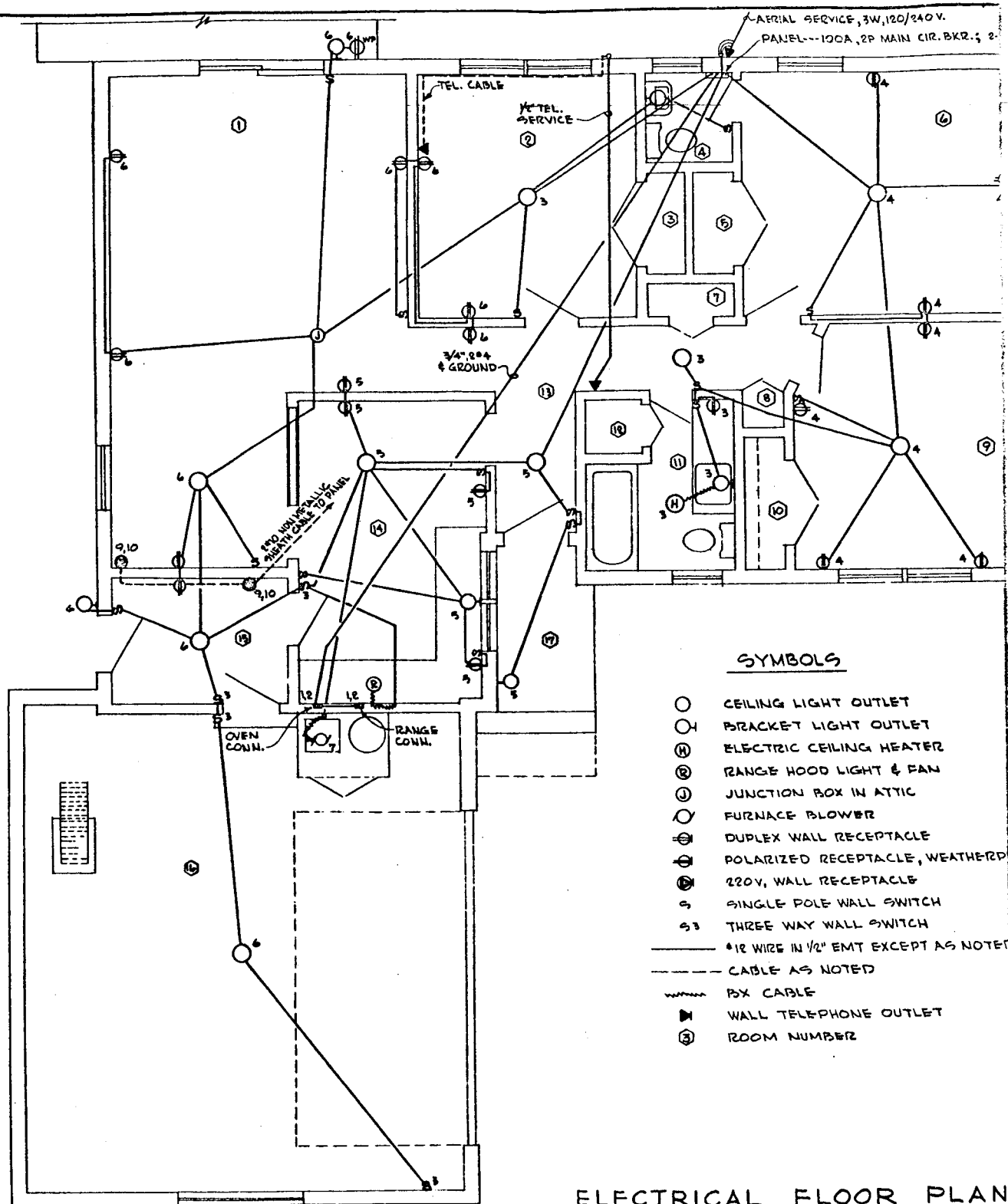


WEST ELEVATION

6

TEST HOUSE #1 919 KENILWORTH ROAD OKLAHOMA CITY			
<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div>	PROJECT NO.	989	
	FILE NO.		
	DRAWN BY	B.R.	
	TRACED BY	Hudgins, Thompson, Ball and Associates, Inc.	
DATE	JANUARY 20, 1964	CHECKED BY	
ARCHITECTS - ENGINEERS - PLANNERS 1411 CLABEN BLVD. 700 MAYO BLDG. OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA		S.S.I. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY - OKLAHOMA CITY SHEET NO. A-4 FOUR	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 5 of 30
TEST HOUSE NO. 1 (5 of 6)



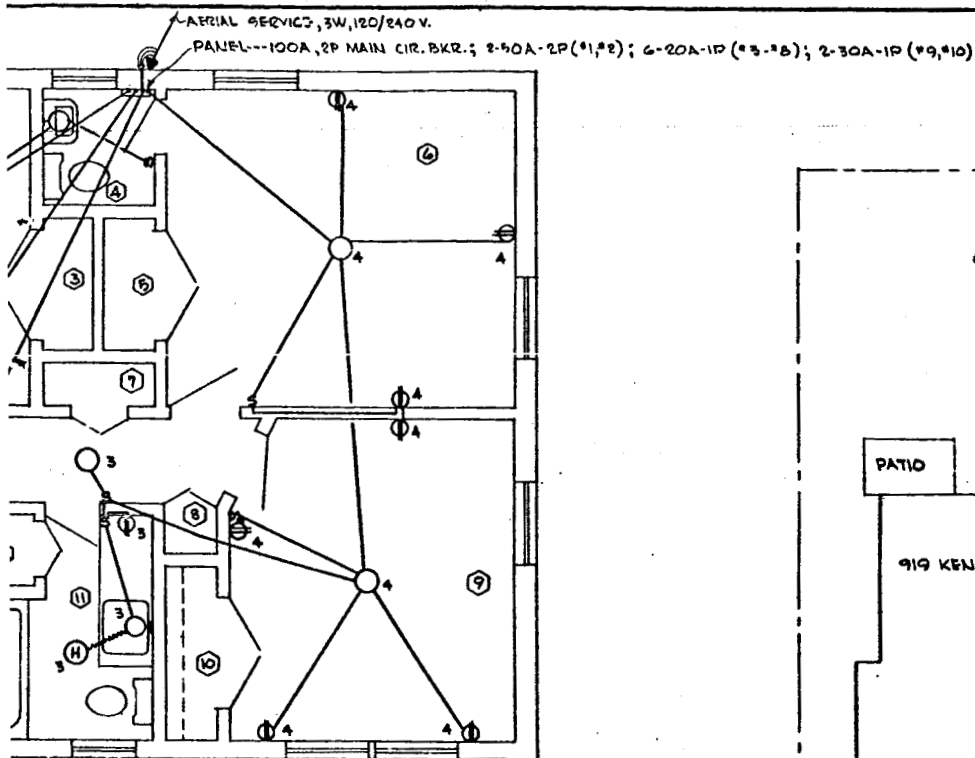
SYMBOLS

- CEILING LIGHT OUTLET
- 1 BRACKET LIGHT OUTLET
- ⊗ ELECTRIC CEILING HEATER
- ⊗ RANGE HOOD LIGHT & FAN
- ⊙ JUNCTION BOX IN ATTIC
- FURNACE BLOWER
- ⊕ DUPLEX WALL RECEPTACLE
- ⊕ POLARIZED RECEPTACLE, WEATHERED
- ⊕ 220V, WALL RECEPTACLE
- SINGLE POLE WALL SWITCH
- 3 THREE WAY WALL SWITCH
- #12 WIRE IN 1/2" EMT EXCEPT AS NOTED
- - - CABLE AS NOTED
- ~~~~~ BX CABLE
- ▶ WALL TELEPHONE OUTLET
- ③ ROOM NUMBER

ELECTRICAL FLOOR PLAN

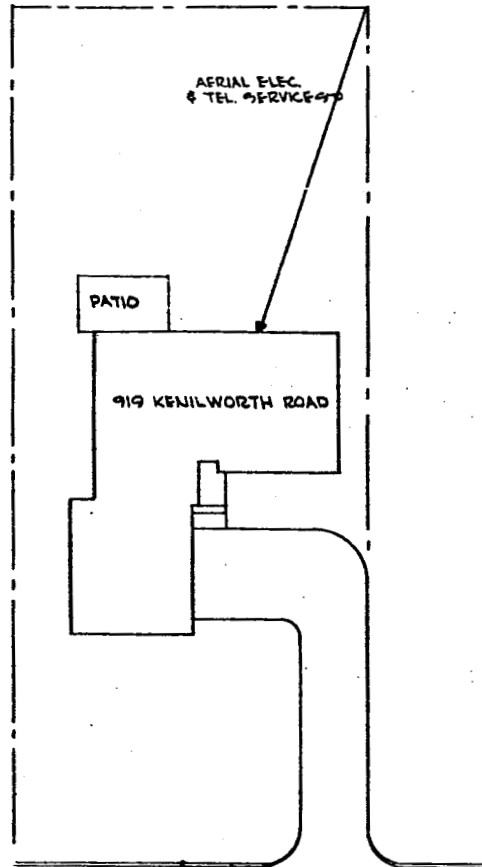
SCALE : 1/4" = 1'-0"

A



SYMBOLS

- CEILING LIGHT OUTLET
- H BRACKET LIGHT OUTLET
- ⊖ ELECTRIC CEILING HEATER
- ⊖ RANGE HOOD LIGHT & FAN
- ⊙ JUNCTION BOX IN ATTIC
- FURNACE BLOWER
- ⊖ DUPLEX WALL RECEPTACLE
- ⊖ POLARIZED RECEPTACLE, WEATHERPROOF
- ⊖ 220V, WALL RECEPTACLE
- ⊖ SINGLE POLE WALL SWITCH
- ⊖ THREE WAY WALL SWITCH
- #12 WIRE IN 1/2" EMT EXCEPT AS NOTED
- - - CABLE AS NOTED
- ~~~~~ POX CABLE
- ⊖ WALL TELEPHONE OUTLET
- ③ ROOM NUMBER



919 KENILWORTH ROAD



ELECTRICAL PLOT PLAN

SCALE: 1" = 20'-0"

NOTES:

1. NUMBERS BESIDE OUTLETS INDICATE CIRCUIT NUMBER.

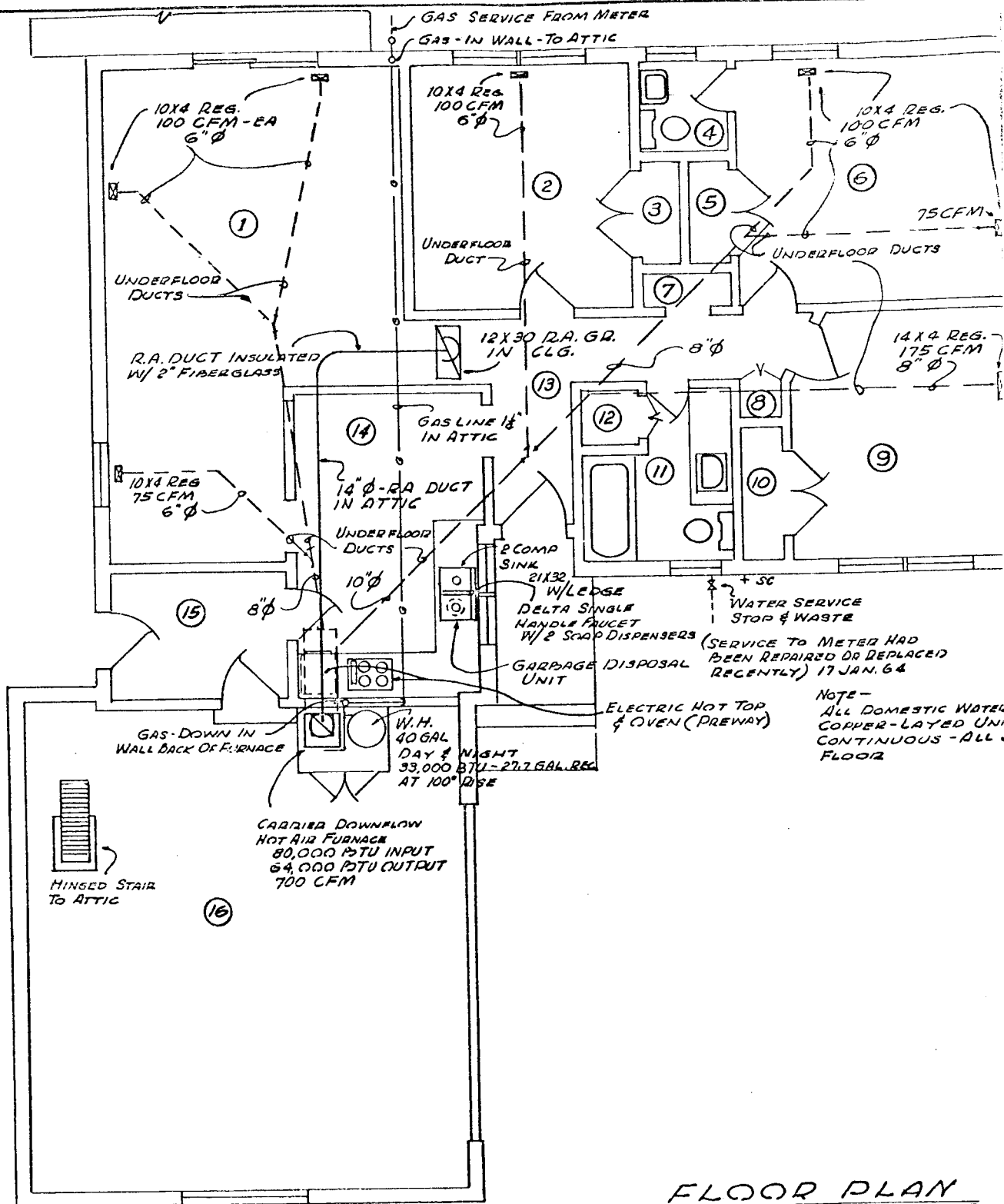
CENTRICAL FLOOR PLAN

1/4" = 1'-0"

TEST HOUSE #1 919 KENILWORTH ROAD OKLAHOMA CITY

	PROJECT NO. 989	SGT. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY		SHEET NO. E-1 OF ONE
	FILE NO.	Hudgins, Thompson, Bell and Associates, Inc. <small>ARCHITECTS - ENGINEERS - PLANNERS</small> 1411 CLARKSON BLVD. OKLAHOMA CITY, OKLA. 700 MAYO BLDG. TULSA, OKLAHOMA		
	DRAWN BY G.L.V.			
	TRACED BY C.R.			
DATE JANUARY 20, 1964	CHECKED BY G.H.			

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 6 of 30
TEST HOUSE NO. 1 (6 of 6)



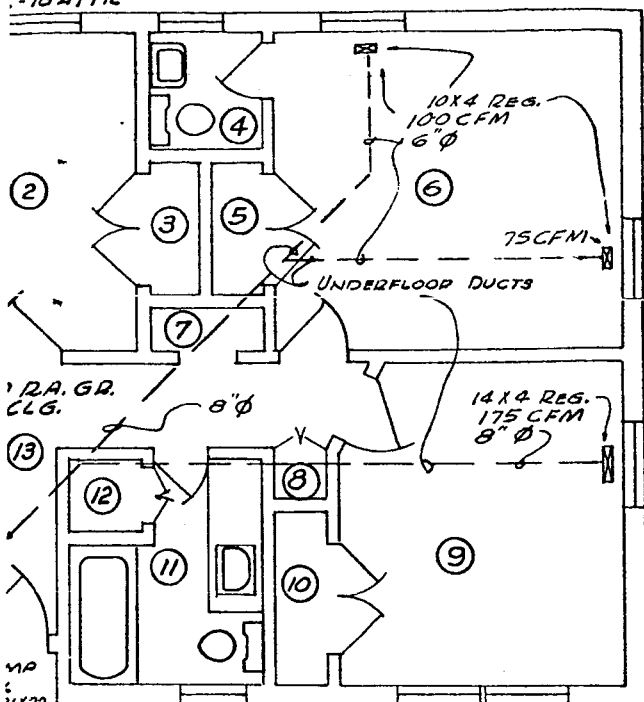
FLOOR PLAN

SCALE: 1/4" = 1'-0"

A

FROM METER

TO ATTIC

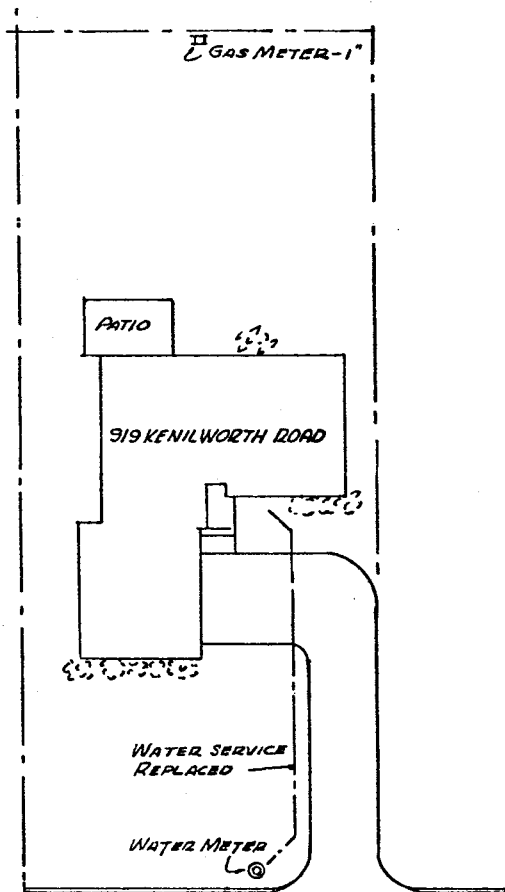


W/LEDGE
ELTA SINGLE
INOLE FAUCET
1/2 SOAP DISPENSERS
(SERVICE TO METER HAD
BEEN REPAIRED OR REPLACED
RECENTLY) 17 JAN. 64

ELECTRIC HOT TOP
& OVEN (PREWAY)

GAL. REC.

NOTE -
ALL DOMESTIC WATER LINES ARE
COPPER-LAYED UNDER SLAB
CONTINUOUS - ALL JOINTS ABOVE
FLOOR



KENILWORTH



LOT PLAN
SCALE: 1"=20'-0"

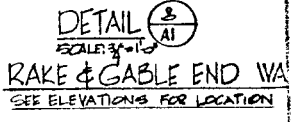
FLOOR PLAN

SCALE: 1/4"=1'-0"

TEST HOUSE #1 919 KENILWORTH ROAD OKLAHOMA CITY

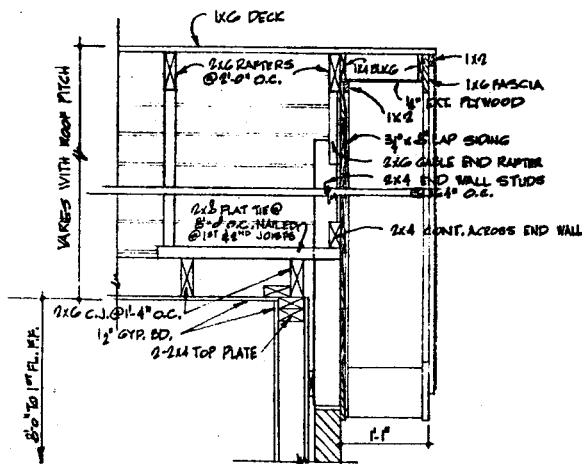
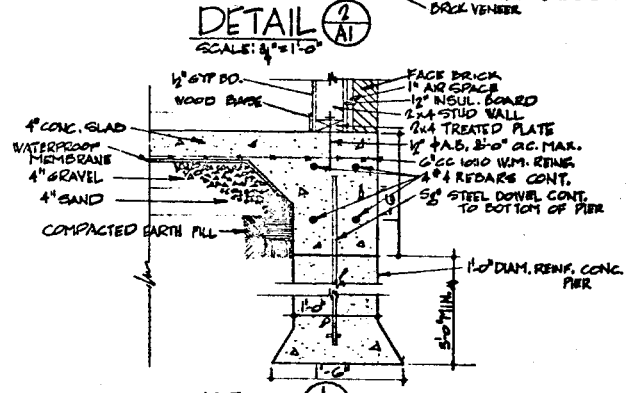
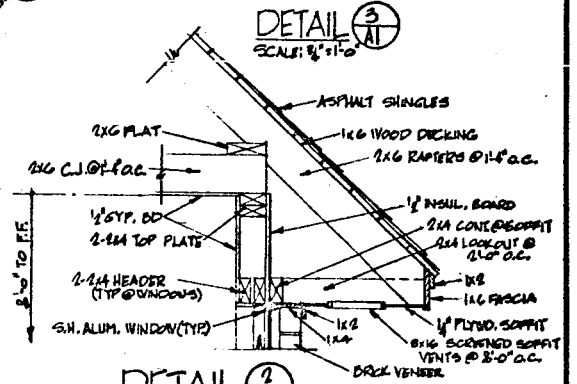
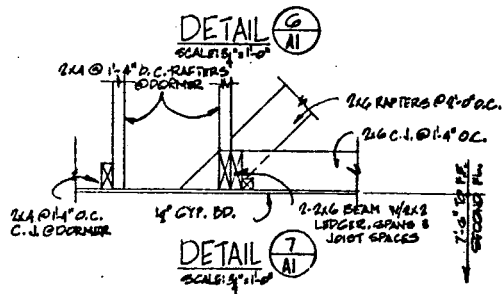
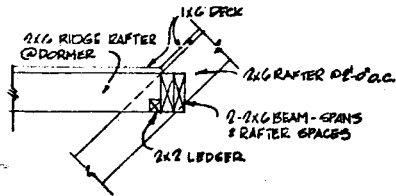
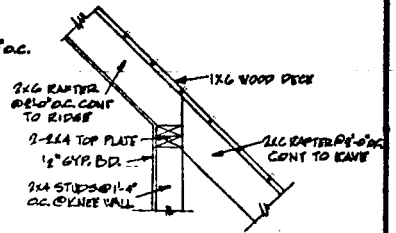
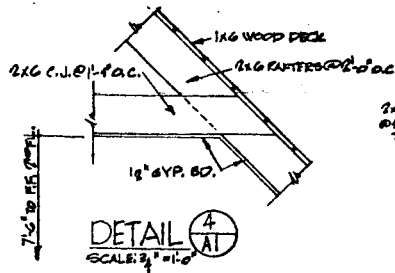
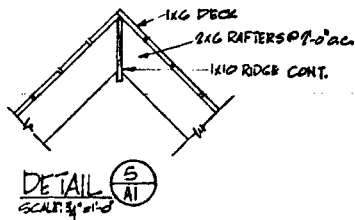
PROJECT NO. 989		S&T. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY - OKLAHOMA CITY	
FILE NO.		ARCHITECTS - ENGINEERS - PLANNERS Hudgins, Thompson, Ball and Associates, Inc. 1811 CLASSEN BLVD. TULSA, OKLAHOMA	
DRAWN BY BR	TRACED BY	CHECKED BY	DATE JANUARY 12, 1964

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 7 of 30
TEST HOUSE NO. 2 (1 of 2)

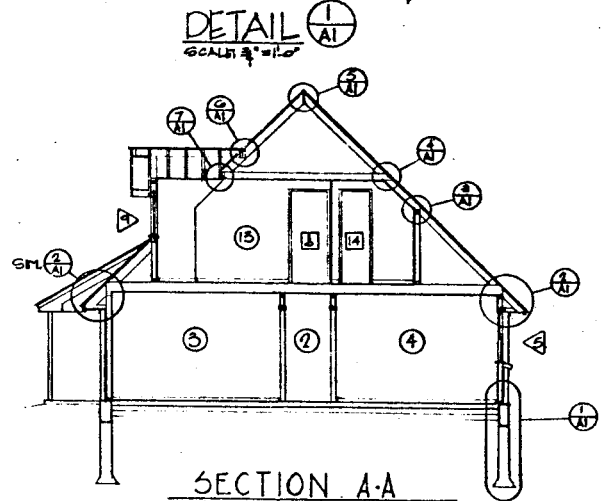


N

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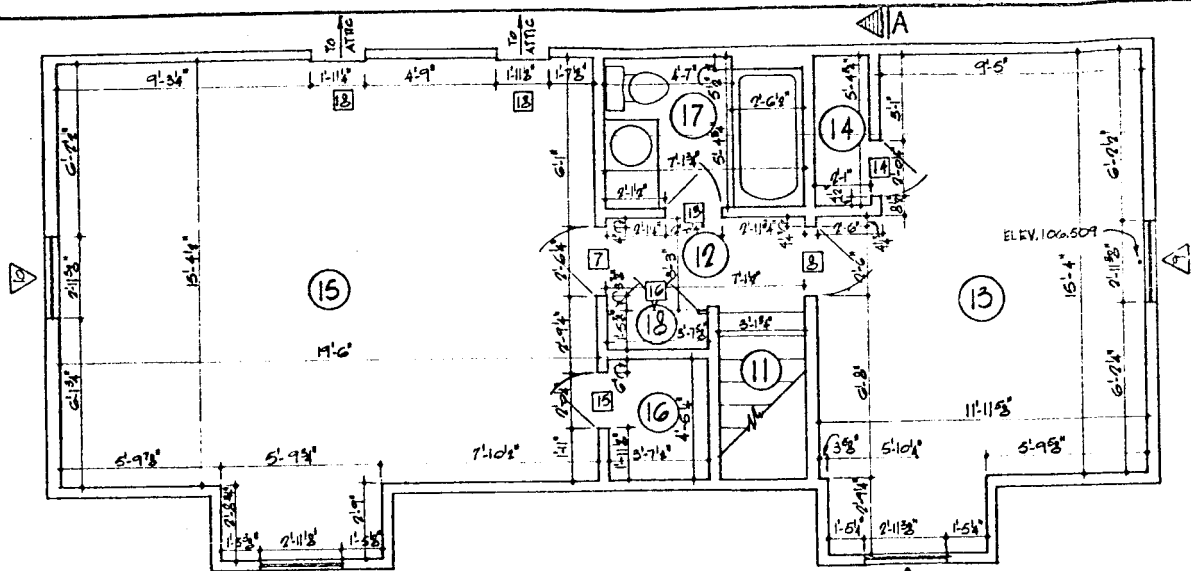
DETAIL 8
RAKE & GABLE END WALL
SEE ELEVATIONS FOR LOCATION



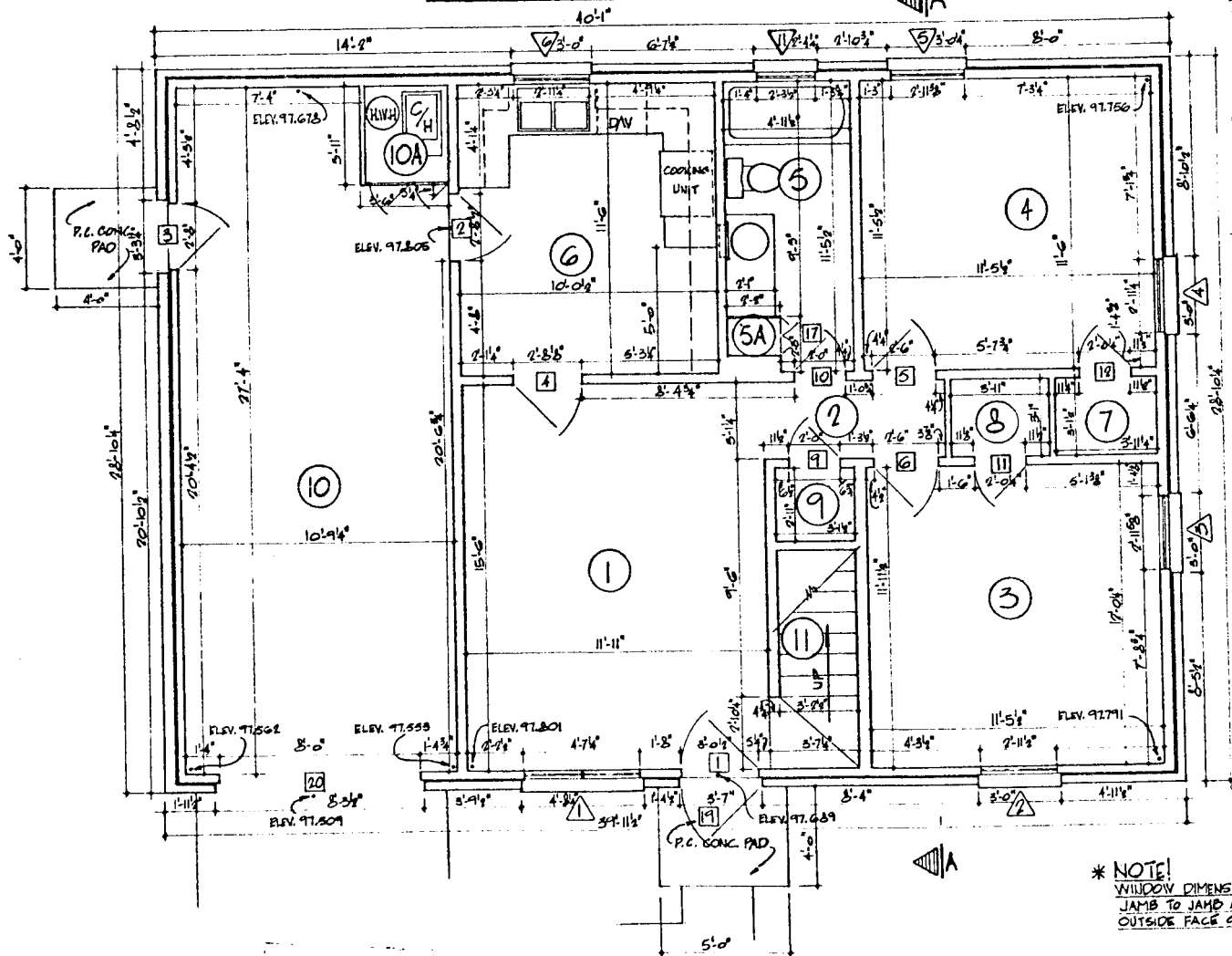
TEST HOUSE # 2 529 NW 91ST ST. OKLAHOMA CITY

PROJECT NO.		SST. PROGRAM TEST STRUCTURE	
FILE NO.		FOR FEDERAL AVIATION AGENCY - OKLAHOMA CITY	
DRAWN BY B.R.	TRACED BY	Hudgins, Thompson, Ball and Associates, Inc.	
DATE JANUARY 24, 1964	CHECKED BY	1411 CLARKSON BLVD. TULSA, OKLAHOMA	
		SHEET NO. A-1	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 8 of 30
TEST HOUSE NO. 2 (2 of 2)



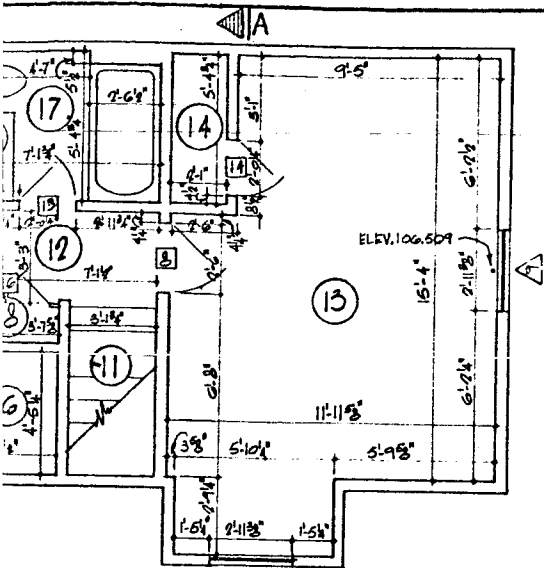
△ SECOND FLOOR PLAN △



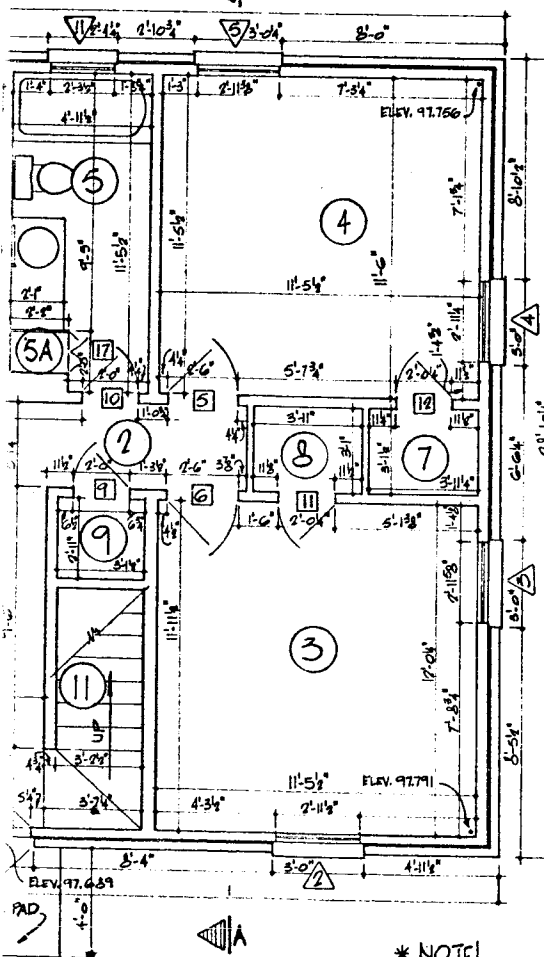
△ FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

* NOTE!
WINDOW DIMENSION
JAMB TO JAMB AND
OUTSIDE FACE OF



FLOOR PLAN



* NOTE:
WINDOW DIMENSIONS ARE TAKEN FROM
JAMB TO JAMB AND HEAD TO SILL AT
OUTSIDE FACE OF WINDOW.

ROOM FINISH SCHEDULE

AREA NO.	DESIGNATION	FLOOR	WALLS	CLG.	COMMENTS
		EX. CONC.	W. TILE	CEILING	
1	LIVING ROOM				
2	LOWER HALL				
3	BEDROOM				
4	"				
5	BATH				
6A	BATH LINEN				6'-0" C.T. WAINSCOT @ TUB - 7'-8 1/2" WOOD WAINS. @ EAST & WEST WALLS
6	KITCHEN				JOB-BUILT CABINET, FLAT GR. & GYP. BD. WALL BETWEEN CAB. & VANITY
7	CLOSET				
8	"				
9	LINEN				JOB-BUILT CABINET
10	GARAGE				SIMULATED WOOD GRAIN GYP. BD. ON WALLS
11	MECH. CLOSET				GYP. BD. ON EX. FLAT FRAMEWORK
12	STAIRWAY				
13	UPPER HALL				
14	BEDROOM				
15	CLOSET				
16	BEDROOM				
17	CLOSET				
18	BATH				6'-0" CER. TILE WAINSCOT @ TUB - 7'-8 1/2" WAINSCOT ON NORTH & WEST WALLS
19	LINEN				JOB-BUILT CABINET

NOTE: 2 1/2" WOOD BASE IN ALL ROOMS EXCEPT GARAGE & MECH. CLOSET

DOOR SCHEDULE

NO.	SIZE	TYPE	MATERIAL	COMMENTS
	HT. W. TH.			
1	6'-8" 3'-0" 1 3/4"	H.C. SLAB	MAHOG.	
2	7'-8" 2'-8" 1 3/4"	"	MAHOG.	SLIDING LITE 1/1 W/SCREEN INSTALLED IN DOOR
3	" 2'-8" 1 3/4"	N.D. 549	W. PINE	MILL MADE - 1 LITE & PANELS
4	" 2'-6" 1 3/4"	H.C. SLAB	MAHOG.	
5	" 2'-6" 1 3/4"	"	"	
6	" 2'-0" 1 3/4"	"	"	
7	" 2'-0" 1 3/4"	"	"	
8	" 2'-0" 1 3/4"	"	"	
9	" 2'-0" 1 3/4"	"	"	
10	" 2'-0" 1 3/4"	"	"	
11	" 2'-0" 1 3/4"	"	"	
12	" 2'-0" 1 3/4"	"	"	
13	" 2'-0" 1 3/4"	"	"	
14	" 2'-0" 1 3/4"	"	"	
15	" 2'-0" 1 3/4"	"	"	
16	" 2'-0" 1 3/4"	"	"	
17	" 2'-0" 1 3/4"	"	"	
18	" 2'-0" 1 3/4"	"	"	
19	" 2'-0" 1 3/4"	"	"	
20	" 2'-0" 1 3/4"	"	"	
21	" 2'-0" 1 3/4"	"	"	
22	" 2'-0" 1 3/4"	"	"	
23	" 2'-0" 1 3/4"	"	"	
24	" 2'-0" 1 3/4"	"	"	
25	" 2'-0" 1 3/4"	"	"	
26	" 2'-0" 1 3/4"	"	"	
27	" 2'-0" 1 3/4"	"	"	
28	" 2'-0" 1 3/4"	"	"	
29	" 2'-0" 1 3/4"	"	"	
30	" 2'-0" 1 3/4"	"	"	
31	" 2'-0" 1 3/4"	"	"	
32	" 2'-0" 1 3/4"	"	"	
33	" 2'-0" 1 3/4"	"	"	
34	" 2'-0" 1 3/4"	"	"	
35	" 2'-0" 1 3/4"	"	"	
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37	" 2'-0" 1 3/4"	"	"	
38	" 2'-0" 1 3/4"	"	"	
39	" 2'-0" 1 3/4"	"	"	
40	" 2'-0" 1 3/4"	"	"	
41	" 2'-0" 1 3/4"	"	"	
42	" 2'-0" 1 3/4"	"	"	
43	" 2'-0" 1 3/4"	"	"	
44	" 2'-0" 1 3/4"	"	"	
45	" 2'-0" 1 3/4"	"	"	
46	" 2'-0" 1 3/4"	"	"	
47	" 2'-0" 1 3/4"	"	"	
48	" 2'-0" 1 3/4"	"	"	
49	" 2'-0" 1 3/4"	"	"	
50	" 2'-0" 1 3/4"	"	"	
51	" 2'-0" 1 3/4"	"	"	
52	" 2'-0" 1 3/4"	"	"	
53	" 2'-0" 1 3/4"	"	"	
54	" 2'-0" 1 3/4"	"	"	
55	" 2'-0" 1 3/4"	"	"	
56	" 2'-0" 1 3/4"	"	"	
57	" 2'-0" 1 3/4"	"	"	
58	" 2'-0" 1 3/4"	"	"	
59	" 2'-0" 1 3/4"	"	"	
60	" 2'-0" 1 3/4"	"	"	
61	" 2'-0" 1 3/4"	"	"	
62	" 2'-0" 1 3/4"	"	"	
63	" 2'-0" 1 3/4"	"	"	
64	" 2'-0" 1 3/4"	"	"	
65	" 2'-0" 1 3/4"	"	"	
66	" 2'-0" 1 3/4"	"	"	
67	" 2'-0" 1 3/4"	"	"	
68	" 2'-0" 1 3/4"	"	"	
69	" 2'-0" 1 3/4"	"	"	
70	" 2'-0" 1 3/4"	"	"	
71	" 2'-0" 1 3/4"	"	"	
72	" 2'-0" 1 3/4"	"	"	
73	" 2'-0" 1 3/4"	"	"	
74	" 2'-0" 1 3/4"	"	"	
75	" 2'-0" 1 3/4"	"	"	
76	" 2'-0" 1 3/4"	"	"	
77	" 2'-0" 1 3/4"	"	"	
78	" 2'-0" 1 3/4"	"	"	
79	" 2'-0" 1 3/4"	"	"	
80	" 2'-0" 1 3/4"	"	"	
81	" 2'-0" 1 3/4"	"	"	
82	" 2'-0" 1 3/4"	"	"	
83	" 2'-0" 1 3/4"	"	"	
84	" 2'-0" 1 3/4"	"	"	
85	" 2'-0" 1 3/4"	"	"	
86	" 2'-0" 1 3/4"	"	"	
87	" 2'-0" 1 3/4"	"	"	
88	" 2'-0" 1 3/4"	"	"	
89	" 2'-0" 1 3/4"	"	"	
90	" 2'-0" 1 3/4"	"	"	
91	" 2'-0" 1 3/4"	"	"	
92	" 2'-0" 1 3/4"	"	"	
93	" 2'-0" 1 3/4"	"	"	
94	" 2'-0" 1 3/4"	"	"	
95	" 2'-0" 1 3/4"	"	"	
96	" 2'-0" 1 3/4"	"	"	
97	" 2'-0" 1 3/4"	"	"	
98	" 2'-0" 1 3/4"	"	"	
99	" 2'-0" 1 3/4"	"	"	
100	" 2'-0" 1 3/4"	"	"	

WINDOW SCHEDULE

NO.	SIZE	* H. T.	TYPE	MATERIAL	COMMENTS
	W. H. T.				
1	4'-8 1/2" 4'-11 1/4" 1"	S.H. 2LT/2LT	ALUMINUM		TWO UNITS 2'-3 3/8" W X 4'-10 1/2" H W/2" MULLION
2	5'-0" 5'-7 1/4" 1"				
3	5'-0" 5'-7 1/4" 1"				
4	" " " "				
5	" " " "				
6	" " " "				
7	" " " "				
8	" " " "				
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45	" " " "				
46	" " " "				
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97	" " " "				
98	" " " "				
99	" " " "				
100	" " " "				

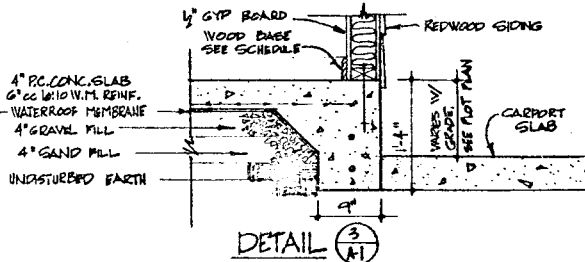
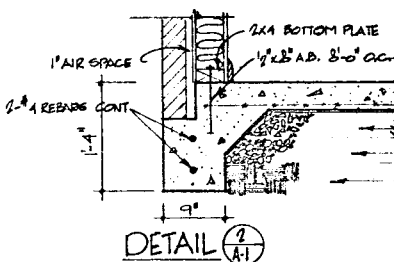
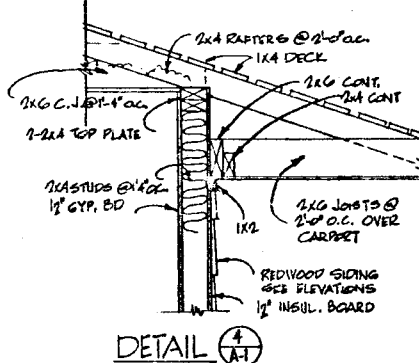
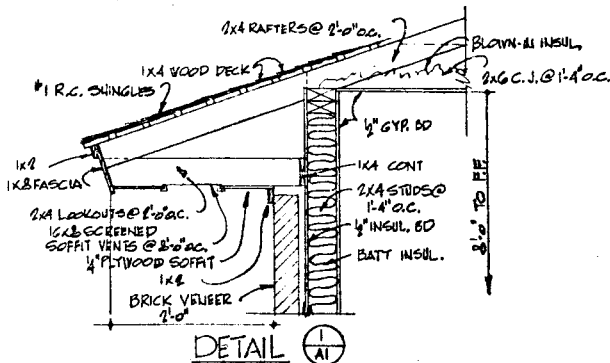
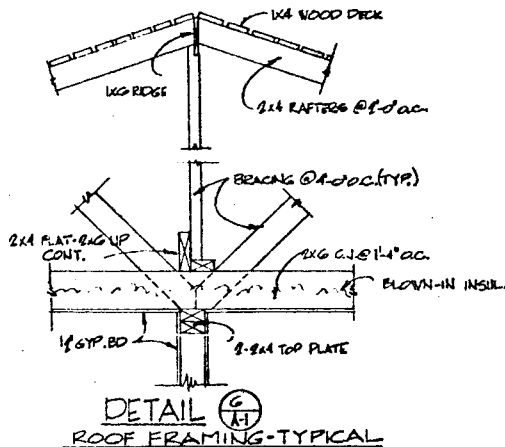
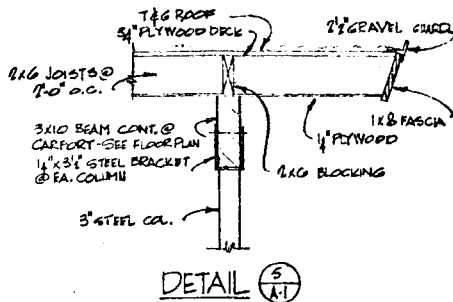
TEST HOUSE #2 334 NW 9TH ST. OKLAHOMA CITY

FLOOR PLAN

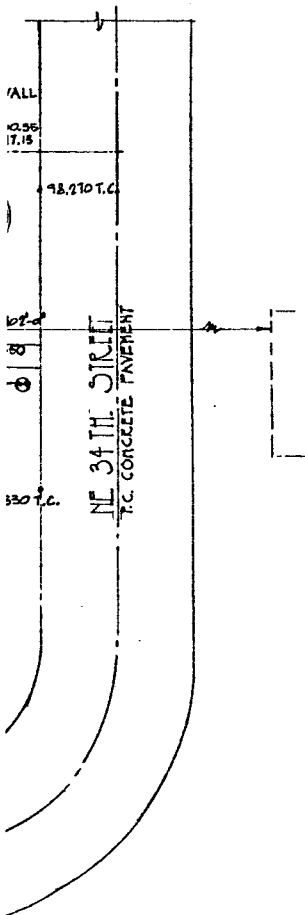
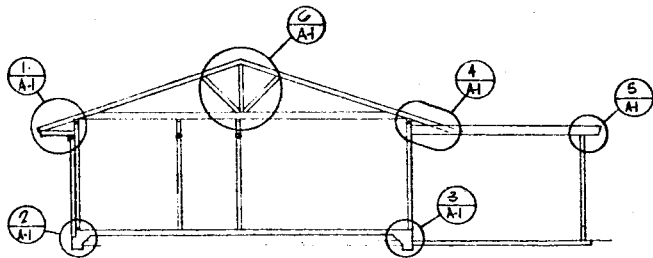
B

PROJECT NO.		G.S.I. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY	
FILE NO.		DRAWN BY E.R.	
DATE JANUARY 21, 1964		CHECKED BY Hudgins, Thompson, Ball and Associates, Inc.	
ARCHITECTS - ENGINEERS - PLANNERS 1411 CLASSEN BLVD. TULSA, OKLAHOMA		SHEET NO. A-2 OF FOUR	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 9 of 30
TEST HOUSE NO. 3 (1 of 2)



NOTE!
ALL DETAILS SCALE 3/4" = 1'-0"



ANCE TO HOUSE

B

TEST HOUSE #3 1524 N.E. 34TH ST. OKLAHOMA CITY	
PROJECT NO. 9107	FILE NO.
DESIGNED BY B.R.	TRACED BY
DATE JANUARY 30, 1966	CHECKED BY
SST PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY Architects: <i>Hudgins, Thompson, Ball and Associates, Inc.</i> 1811 CLARKSON BLVD. 700 MAYO BLDG. TULSA, OKLAHOMA	
SHEET NO. A-1 OF FOUR	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 10 of 30
TEST HOUSE NO. 3 (2 of 2)

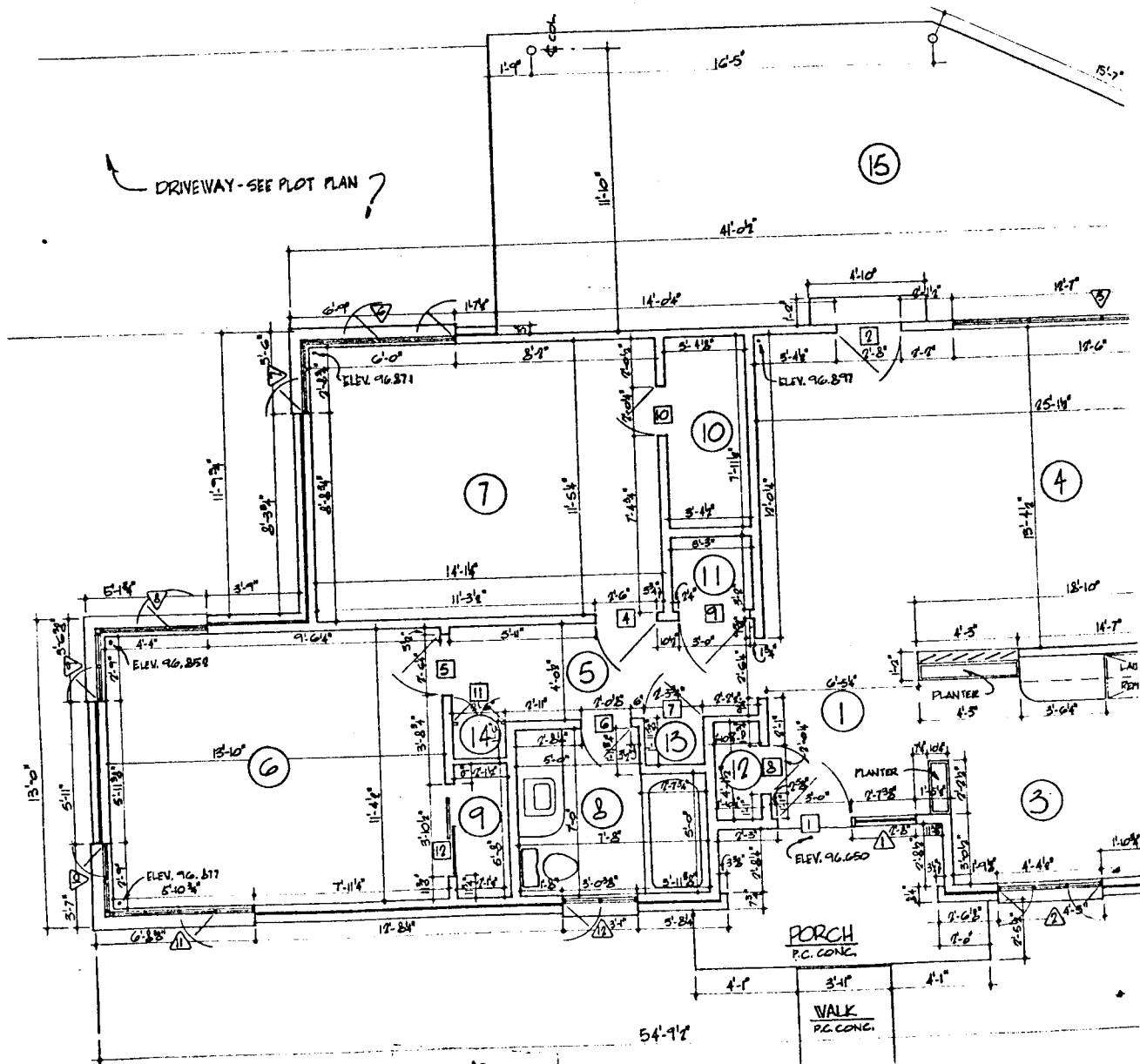
DOOR SCHEDULE

NO.	SIZE	TYPE	MATERIAL	COMMENTS
1	6'-8" 3'-0" 1 3/4"	H.C. SLAB	MAHOGANY	
2	6'-8" 2'-8" 1 3/4"	"	"	
3	6'-0" 2'-4" -	JOB-BUILT		RUSTIC PINE SIDING ON 2"x4 FRAME
4	6'-8" 2'-6" 1 3/8"	H.C. SLAB	MAHOGANY	
5	" " " "	"	"	
6	" " " "	"	"	
7	6'-0" 2'-4" -	JOB-BUILT	FIR PLYWD.	
8	6'-8" 2'-0" 1 3/8"	H.C. SLAB	MAHOGANY	
9	6'-0" 3'-0" 1 3/8"	H.C. SLAB	MAHOGANY	
10	6'-8" 2'-0" 1 3/8"	H.C. SLAB	MAHOGANY	
11	6'-0" 2'-4" -	JOB-BUILT	FIR PLYWD.	
12	6'-8" 2'-0" 1 3/8"	H.C. SLAB	MAHOGANY	

WINDOW SCHEDULE

NO.	SIZE	TYPE	MATERIAL	COMMENTS
1	2'-5" 6'-8" 5/8"	FIXED MILD W/ACE STEEL CASEMENT	N. PINE	* JAMB WIDTH 4 LITES
2	4'-1 1/2" 4'-2"	"	"	
3	2'-9" 3'-1 1/2"	"	"	
4	2'-9" 3'-1 1/2"	"	"	
5	12'-6" 6'-2"	"	"	12 LT. FR. - 10 FIXED - 2 PIVOTED
6	6'-0" 4'-2"	"	"	
7	2'-5 1/2" 4'-2"	"	"	
8	4'-4" 4'-2"	"	"	
9	2'-9" 4'-2"	"	"	
10	2'-9" 4'-2"	"	"	
11	5'-10 1/2" 4'-2"	"	"	
12	3'-0 1/2" 2'-6"	"	"	

NOTE! ALL WINDOWS HAVE FIXED LITES & CASEMENT SECTIONS - S FLOOR PLAN FOR OPERATING SASH.



FLOOR PLAN

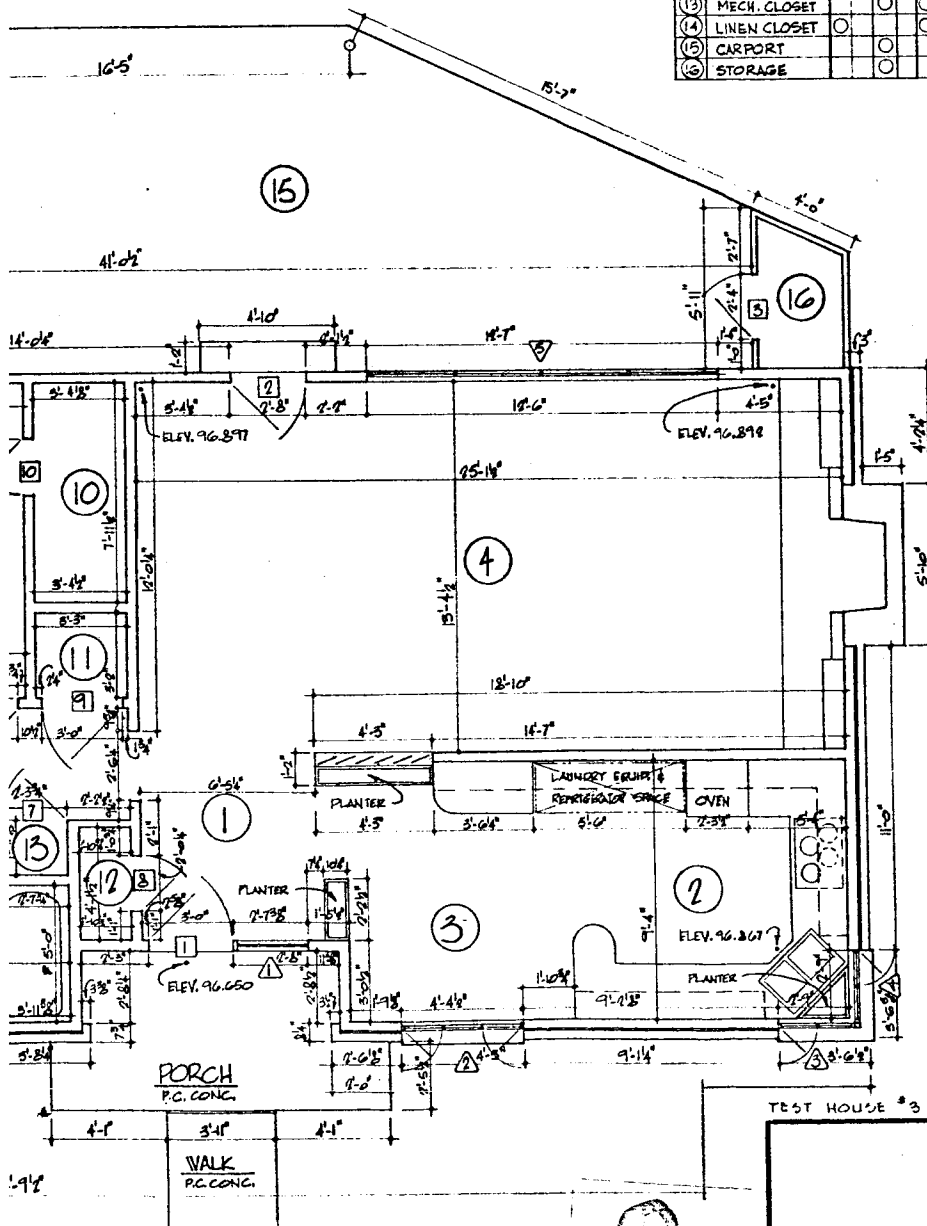
SCALE 1/4" = 1'-0"

WINDOW SCHEDULE

SIZE		TYPE	MATERIAL	COMMENTE
HT.	T ^h			*JAMB WIDTH
5' 6"-8"	5 3/8"	FIXED MINI HEADS STEEL CASSINET	V. PINE	4 LITES
12' 4"-2'				
9' 3'-1 1/2'		"		
1' 3'-1 1/2'		"		
8' 6'-2'		"		12 LT. FR. - 10 FIXED - 2 PIVOTED
7' 4'-2'		"		
3' 4'-2'		"		
" 4'-2'		"		
1' 4'-2'		"		
" 4'-2'		"		
3' 4'-2'		"		
5' 2'-6"		"		

ALL WINDOWS HAVE FIXED LITES & CASEMENT SECTIONS-SEE FLOOR PLAN FOR OPERATING SASH.

ROOM FINISH SCHEDULE

[illegible]

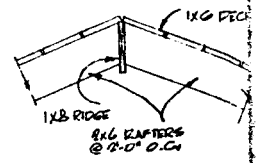
DOOR PLAN

11-21-04

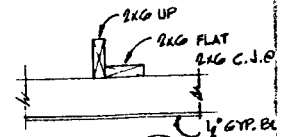
TEST HOUSE #3 1524 N.E. 34TH ST. OKLAHOMA CITY

	PROJECT NO.	<u>S.S.T. PROGRAM</u>	
	FILE NO.	<u>TEST STRUCTURE</u>	
		FOR	
		<u>FEDERAL AVIATION AGENCY-OKLAHOMA CITY</u>	
DATE JANUARY 30, 1964	DRAWN BY B.R.-JH.	<i>Hudgins, Thompson, Bell and Associates, Inc.</i>	
	TRACED BY		
	CHECKED BY	ARCHITECTS - ENGINEERS - PLANNERS 1411 CLASSEN BLVD. 700 MAYO BLDG.	OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA
			SHEET NO. A-2 OF FOUR

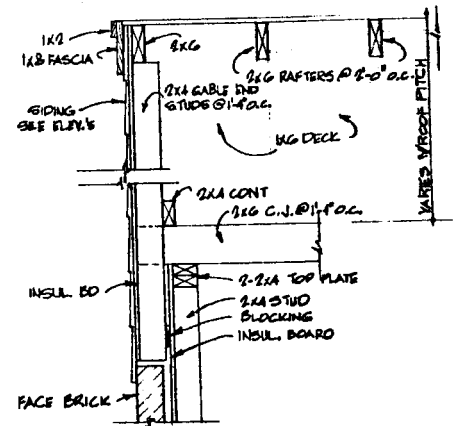
STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 11 of 30
TEST HOUSE NO. 4 (1 of 5)



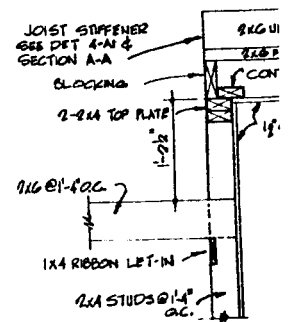
DETAIL 6



NOTE! DETAIL 8 JOIST STIFFENER
CENTER JOIST STIFFENER EXTENDS FROM GAR. PARTY WALL EAST 9'-0" INTERM. J.S. EXTEND ENTIRE LENGTH OF HOUSE, SEE SECTION A-A

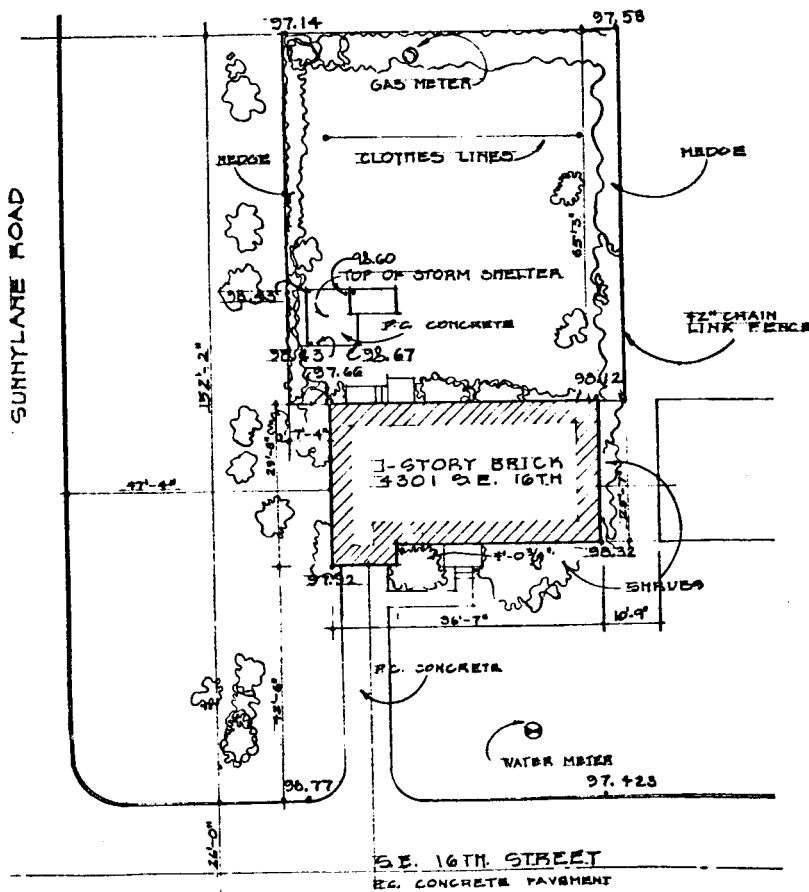


DETAIL 7 GABLE END @ EXT. GAR. WALL



DETAIL 5 PARTY WALL @ LIV. CAR. PART

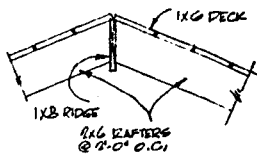
NOTE: ALL DETAILS: SC



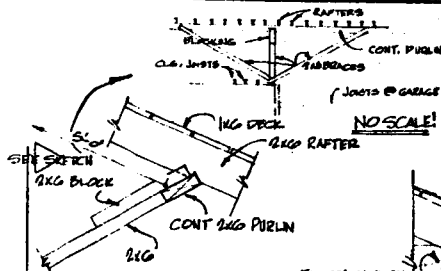
PLOT PLAN
SCALE: 1" = 20'

B.M. TOP F.H. @ S.E. COR. S.E. 16TH & SUNNYLANE
NORTH

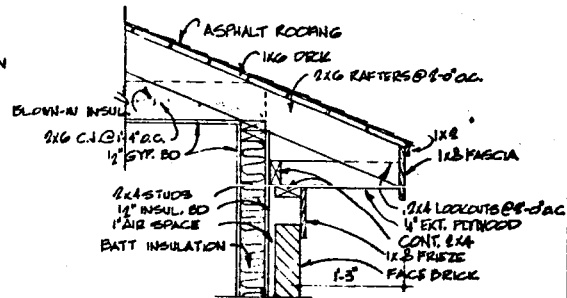




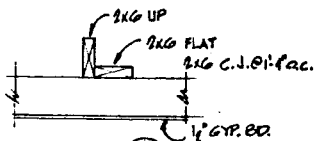
DETAIL 4



DETAIL 5

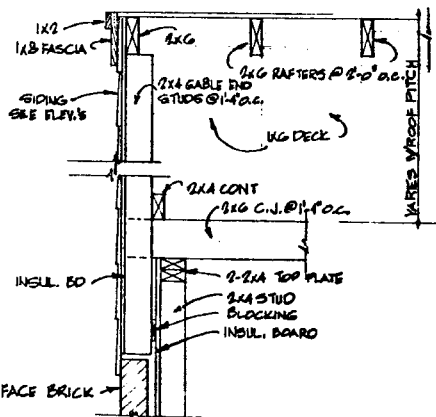


DETAIL 3

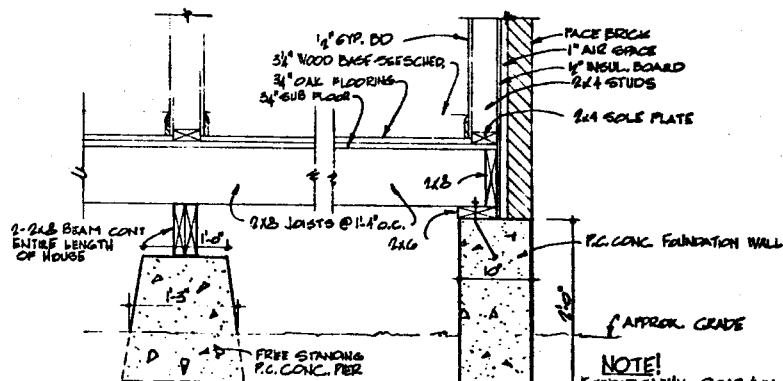


DETAIL 4

NOTE!
JOIST STIFFENER
CENTER JOIST STIFFENER EXTENDS FROM GAR. PARTY WALL EAST 9'-0" INTERM. J.S. EXTEND ENTIRE LENGTH OF HOUSE, SEE SECTION A-A



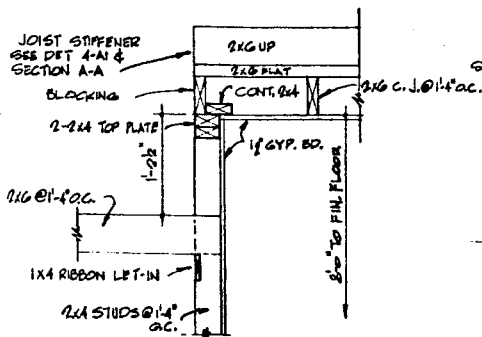
DETAIL 7
GABLE END @ EXT. GAR. WALL



DETAIL 1
LOAD BEARING PARTITION

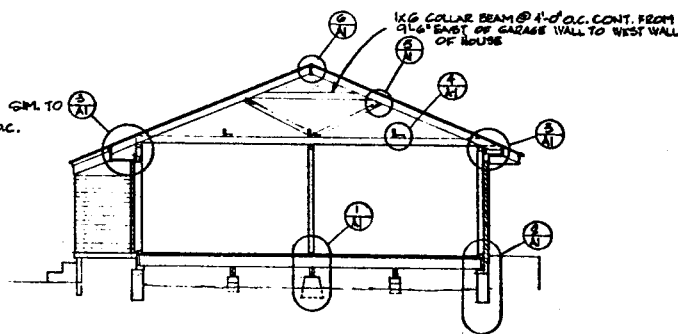
DETAIL 2
TYP. @ EXT. WALL

NOTE!
FOUNDATION WALL @ GAR./INT. PARTY WALL SAME EXCEPT 10" DIMENSION (THICKNESS) REDUCES TO 6"



DETAIL 8
PARTY WALL @ LIV./GAR. PARTITION

NOTE! ALL DETAILS: SCALE 3/4"=1'-0"

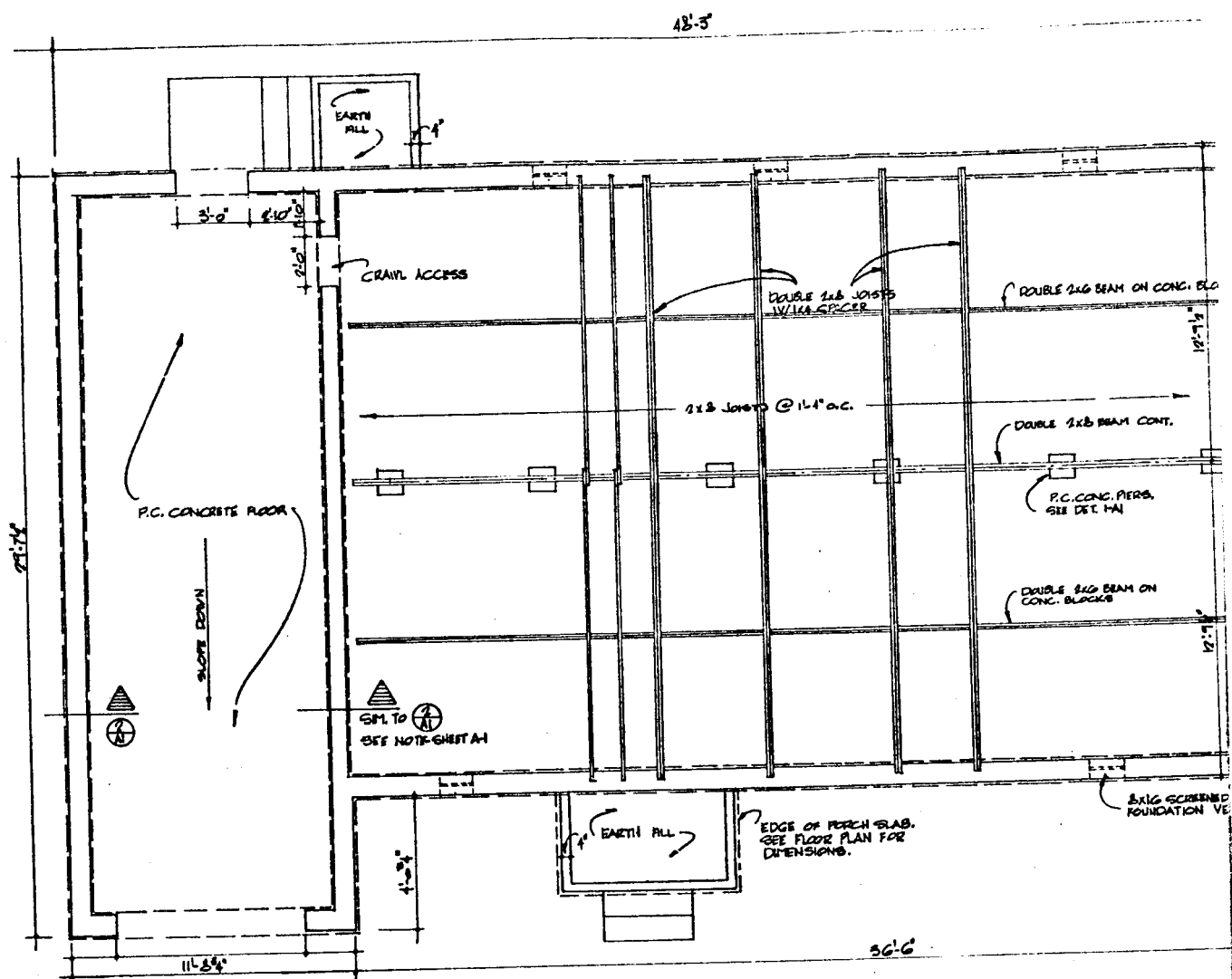


SECTION A-A
SCALE: 1/8"=1'-0"

TEST HOUSE # 4 4301 S.E. 16TH ST. OKLAHOMA CITY

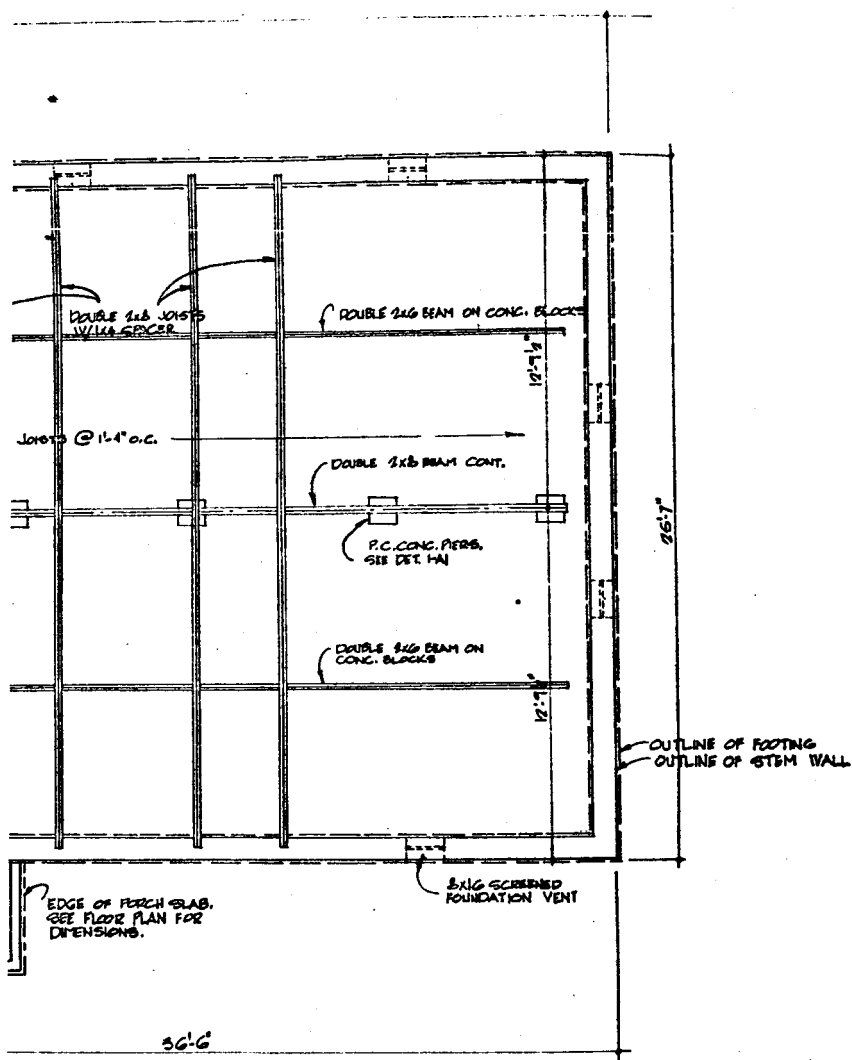
PROJECT NO. 989		SGT. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY	
FILE NO.		ARCHITECTS: HUDGINS, THOMPSON, BALL AND ASSOCIATES, INC. 1411 CLASSEN BLVD. TULSA, OKLAHOMA	
DRAWN BY B.R.-B.H.		CHECKED BY	
DATE JANUARY 29, 1964		SHEET NO. A-1 OF FIVE	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 12 of 30
TEST HOUSE NO. 4 (2 of 5)



FOUNDATION & FLOOR FRAMING PLAN
SCALE: 1/4" = 1'-0"

A

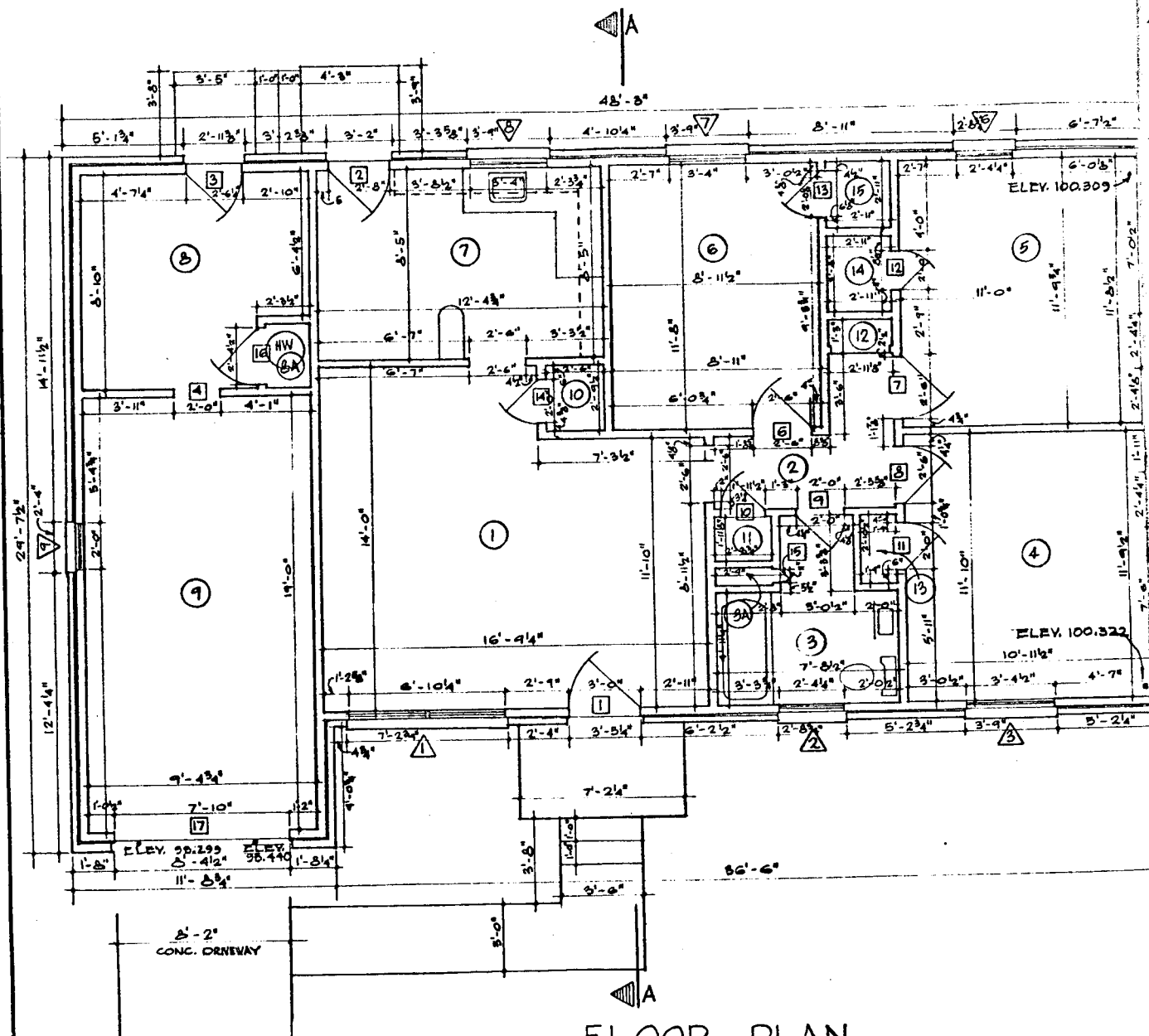


⌘ FLOOR FRAMING PLAN

TEST HOUSE #4 4301 SE 16TH ST. OKLAHOMA CITY

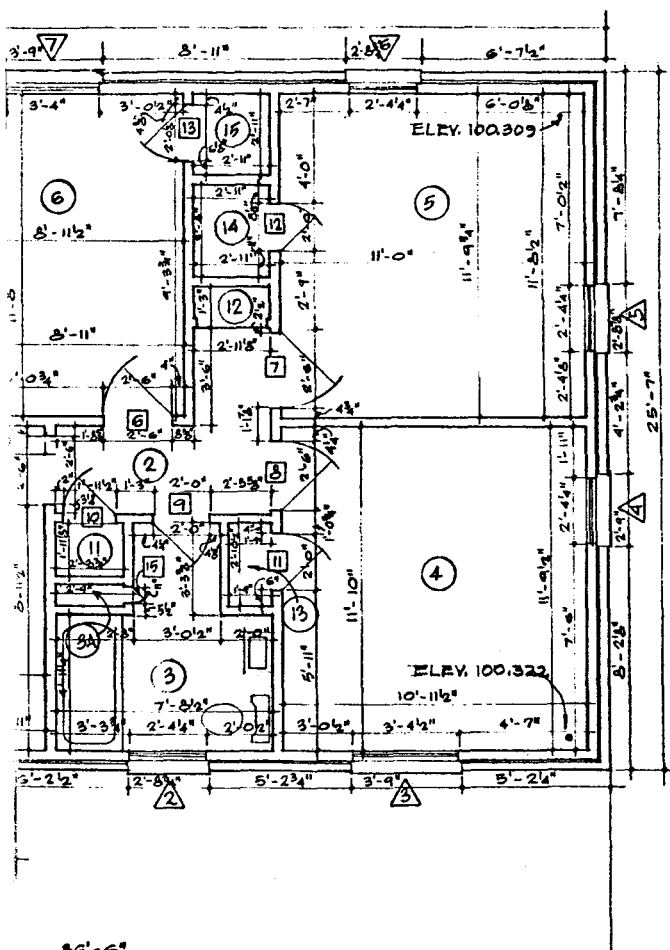
B	PROJECT NO. 989		SGT. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY - OKLAHOMA CITY		A-2
	FILE NO.				
	DRAWN BY D.R.		ARCHITECTS - ENGINEERS - PLANNERS Hudgins, Thompson, Ball and Associates, Inc. 1411 CLASSEN BLVD. OKLAHOMA CITY, OKLA. 700 MAYO BLDG. TULSA, OKLAHOMA		
	CHECKED BY				
DATE JANUARY 29, 1964					

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 13 of 30
TEST HOUSE NO. 4 (3 of 5)



FLOOR PLAN
SCALE: 1/4" = 1'-0"

A



ROOM FINISH SCHEDULE

AREA NO.	DESIGNATION	FLOOR	WALLS	CLG.	COMMENTS
1	LIVING ROOM	CARPET	CEILING	EXP. STUD.	
2	HALL	CARPET	CEILING	EXP. STUD.	
3	BATH	CARPET	CEILING	EXP. STUD.	WAINSCOT 5'-2 1/2" @ TUB - 4'-1 1/2" ELSEWHERE
4	BATH LINEN	CARPET	CEILING	EXP. STUD.	JOB-BUILT
5	BEDROOM	CARPET	CEILING	EXP. STUD.	
6	BEDROOM	CARPET	CEILING	EXP. STUD.	
7	KITCHEN	CARPET	CEILING	EXP. STUD.	
8	UTILITY	CARPET	CEILING	EXP. STUD.	
9	MECH. CLOSET	CARPET	CEILING	EXP. STUD.	
10	GARAGE	CARPET	CEILING	EXP. STUD.	
11	COAT CLOSET	CARPET	CEILING	EXP. STUD.	
12	CLOSET	CARPET	CEILING	EXP. STUD.	
13	LINEN CLOSET	CARPET	CEILING	EXP. STUD.	JOB-BUILT
14	CLOSET	CARPET	CEILING	EXP. STUD.	
15	CLOSET	CARPET	CEILING	EXP. STUD.	
16	CLOSET	CARPET	CEILING	EXP. STUD.	
17	CLOSET	CARPET	CEILING	EXP. STUD.	

NOTE: 3/4" WOOD BASE IN ALL ROOMS EXCEPT BATH, GARAGE & MECH. CLOSET.

DOOR SCHEDULE

NO.	SIZE	TYPE	MATERIAL	COMMENTS
1	6'-8" H. x 3'-0" W. x 1 1/2" TH.	H.C. SLAB	MAHOGANY	12" x 12" DIA. 555 GLASS
2	2'-8" H. x 2'-6" W. x 1 1/2" TH.	ND 2325	V. PINE	MILL MADE
3	2'-6" H. x 2'-6" W. x 1 1/2" TH.	H.C. SLAB	MAHOGANY	24" x 24" 1 LITE
4	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
5	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
6	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
7	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
8	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
9	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
10	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
11	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
12	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
13	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
14	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
15	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
16	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME
17	2'-0" H. x 2'-0" W. x 1 1/2" TH.	JOB-BUILT	PLYWD.	2" PLYWD. ON 1x2 FRAME

WINDOW SCHEDULE

NO.	SIZE	TYPE	MATERIAL	COMMENTS
1	6'-0" H. x 5'-0" W. x 1 1/2" TH.	2 1/2" DH	V. PINE	
2	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
3	3'-4" H. x 4'-10" W. x 1 1/2" TH.			
4	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
5	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
6	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
7	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
8	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
9	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
10	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
11	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
12	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
13	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
14	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
15	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
16	2'-4" H. x 3'-3" W. x 1 1/2" TH.			
17	2'-4" H. x 3'-3" W. x 1 1/2" TH.			

*NOTE!

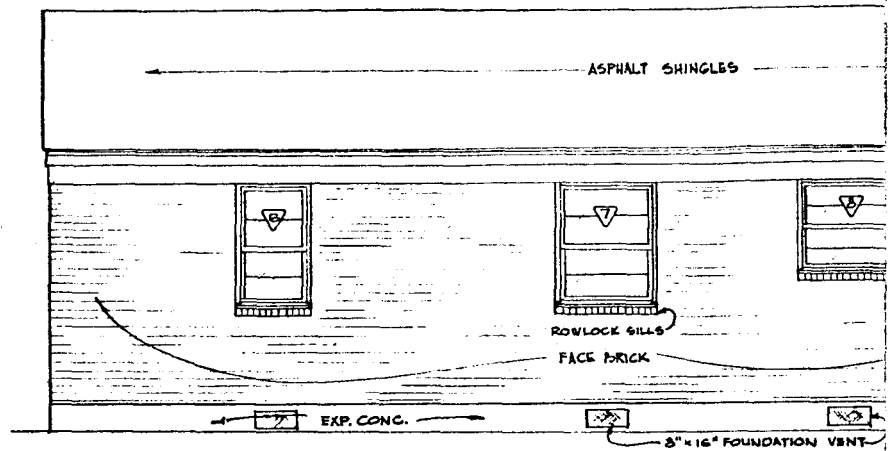
WINDOW DIMENSIONS ARE TAKEN FROM JAMB TO JAMB AND HEAD TO SILL AT OUTSIDE FACE OF WINDOW.

2 PLAN

TEST HOUSE #4 4301 S.E. 16TH ST. OKLAHOMA CITY

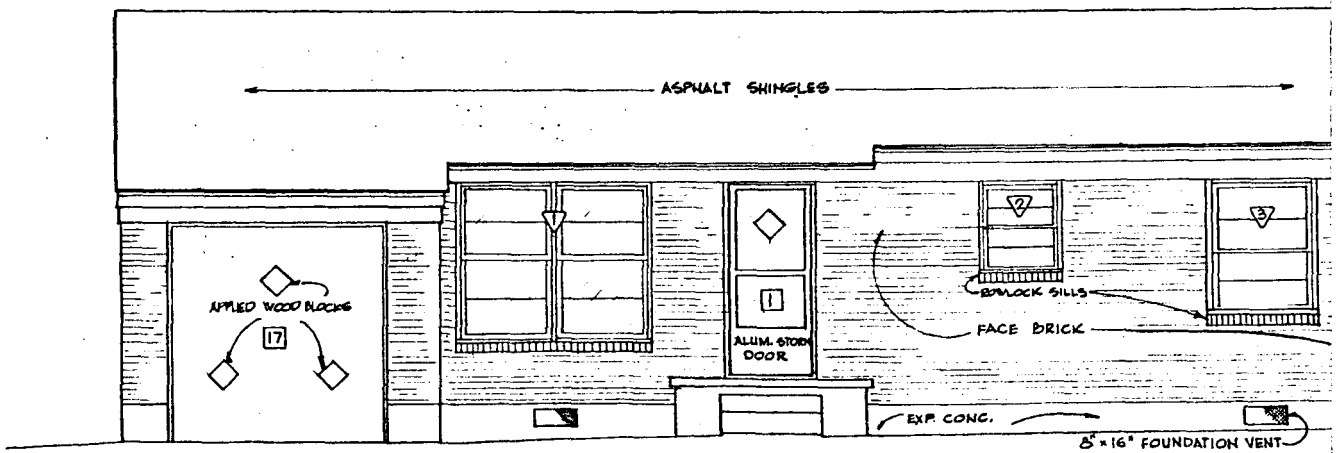
PROJECT NO. 989		S.S.T. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY	
FILE NO.		ARCHITECTS - ENGINEERS - PLANNERS Hudgins, Thompson, Ball and Associates, Inc. 1411 CLARKSON BLVD. TULSA, OKLAHOMA	
DRAWN BY JH		CHECKED BY	
DATE JANUARY 29, 1964		SHEET NO. A-3 OF FIVE	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 14 of 30
TEST HOUSE NO. 4 (4 of 5)



NORTH ELEVATION

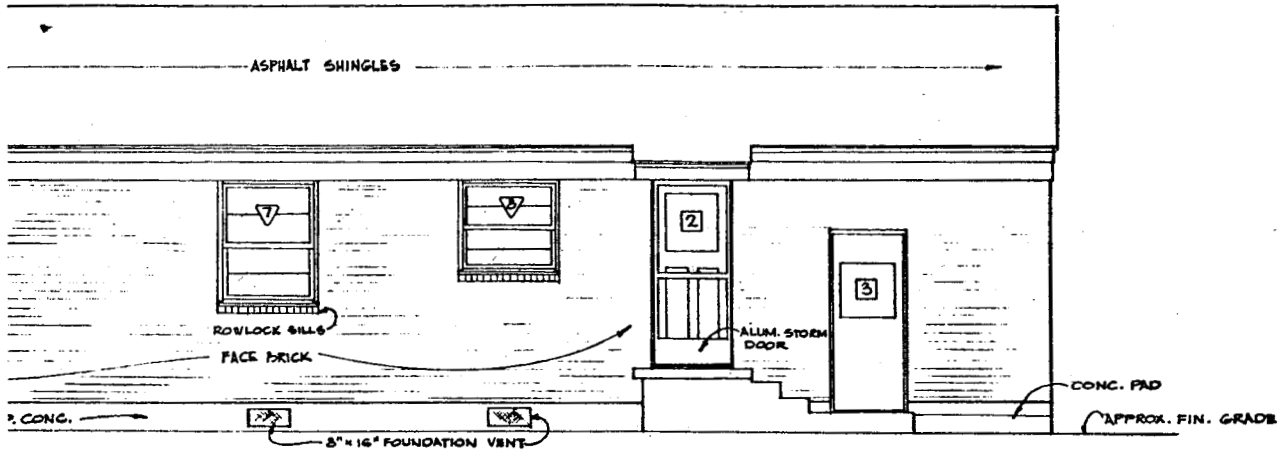
SCALE: $\frac{1}{4}" = 1'-0"$



SOUTH ELEVATION

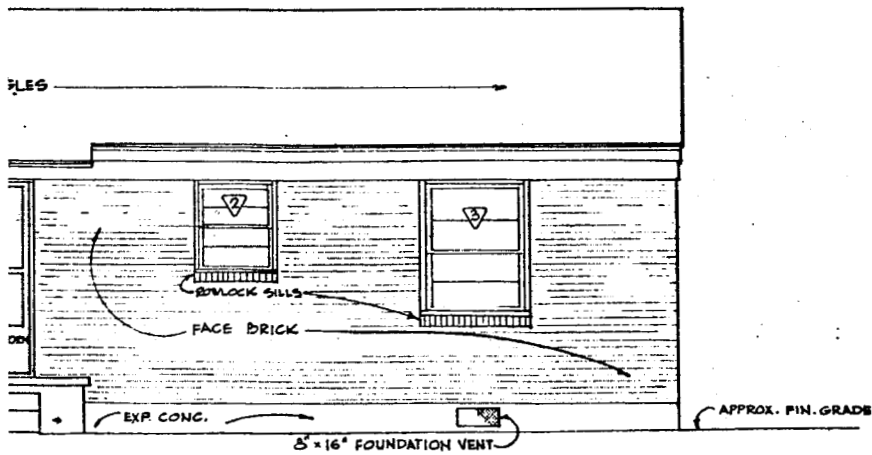
SCALE: $\frac{1}{4}" = 1'-0"$





NORTH ELEVATION

SCALE: $\frac{1}{4}" = 1'-0"$



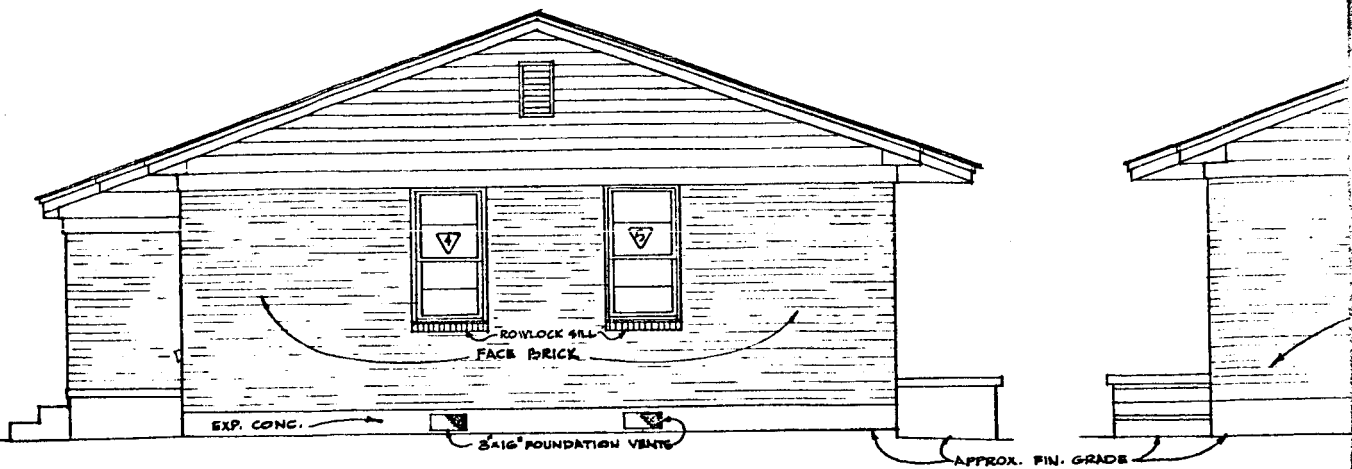
ELEVATION

1'-0"

TEST HOUSE #4 4301 S.E. 16TH ST. OKLAHOMA CITY

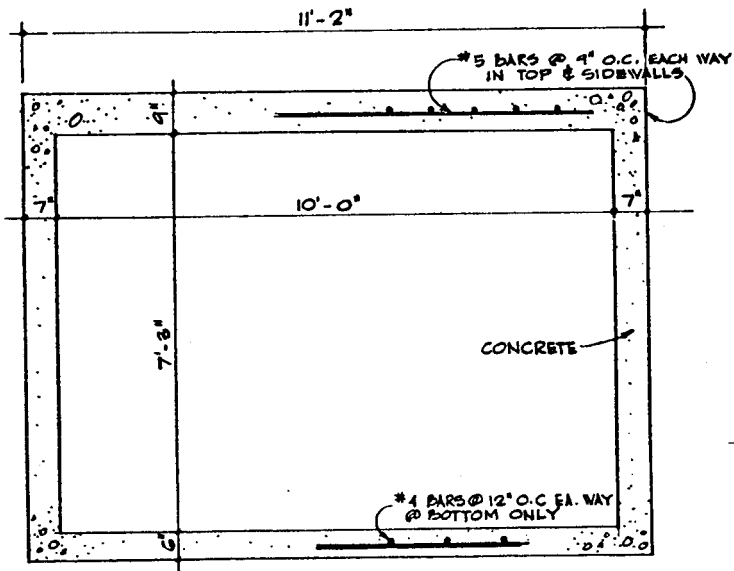
<p style="font-size: 2em;">B</p>	PROJECT NO.		<p>S.S.T. PROGRAM</p> <p>TEST STRUCTURE</p> <p>FOR</p> <p>FEDERAL AVIATION AGENCY-OKLAHOMA CITY</p>		<p>SHEET NO.</p> <p>A-4</p> <p>OF FIVE</p>
	FILE NO.				
	DRAWN BY		<p><i>Hudgins, Thompson, Bell and Associates, Inc.</i></p> <p>ARCHITECTS - ENGINEERS - PLANNERS</p> <p>1411 CLARKSON BLVD. OKLAHOMA CITY, OKLA.</p> <p>700 MAYO BLDG. TULSA, OKLAHOMA</p>		
	CHECKED BY				
DATE		JANUARY 21, 1964			

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 15 of 30
TEST HOUSE NO. 4 (5 of 5)



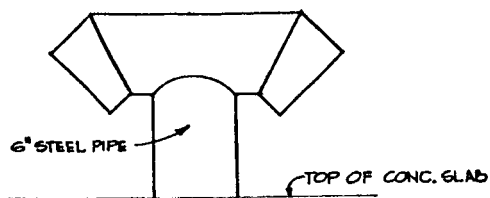
EAST ELEVATION

SCALE: $\frac{1}{4}" = 1'-0"$



SECTION "A-A"

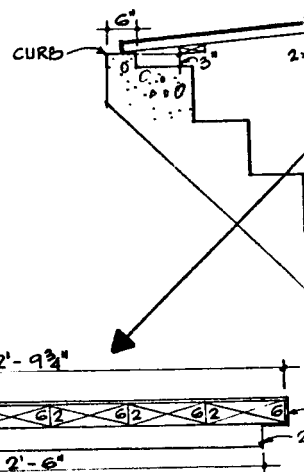
SCALE: $\frac{1}{2}" = 1'-0"$



VENT

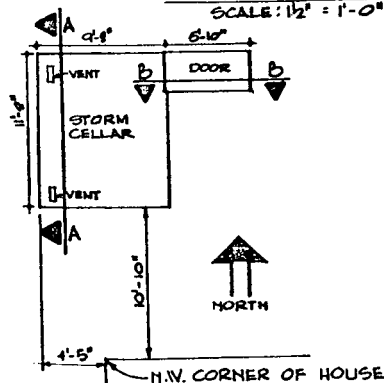
SCALE: $\frac{1}{2}" = 1'-0"$

A



SECTION OF DOOR

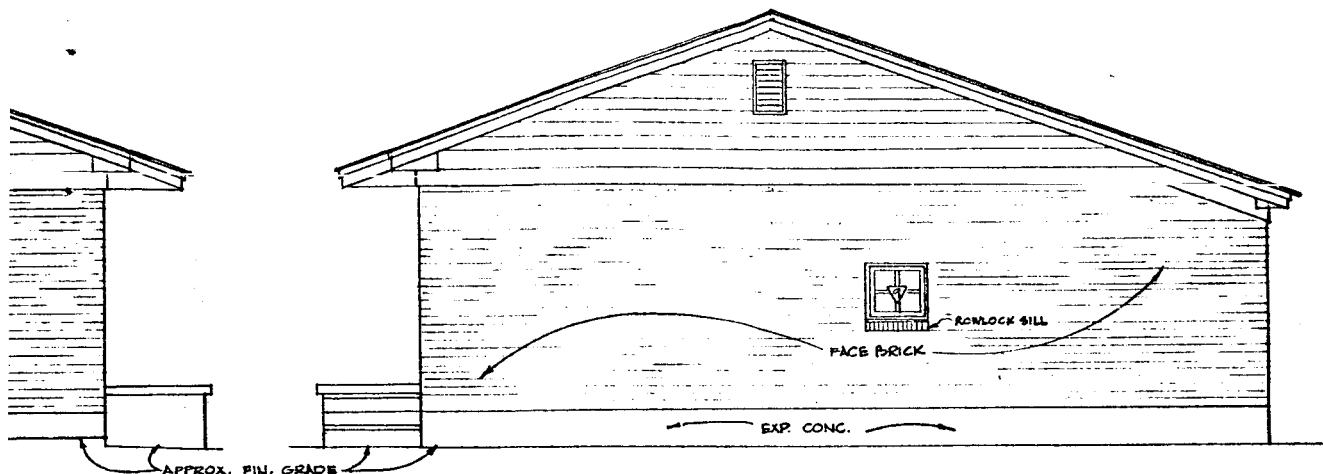
SCALE: $\frac{1}{2}" = 1'-0"$



PLOT

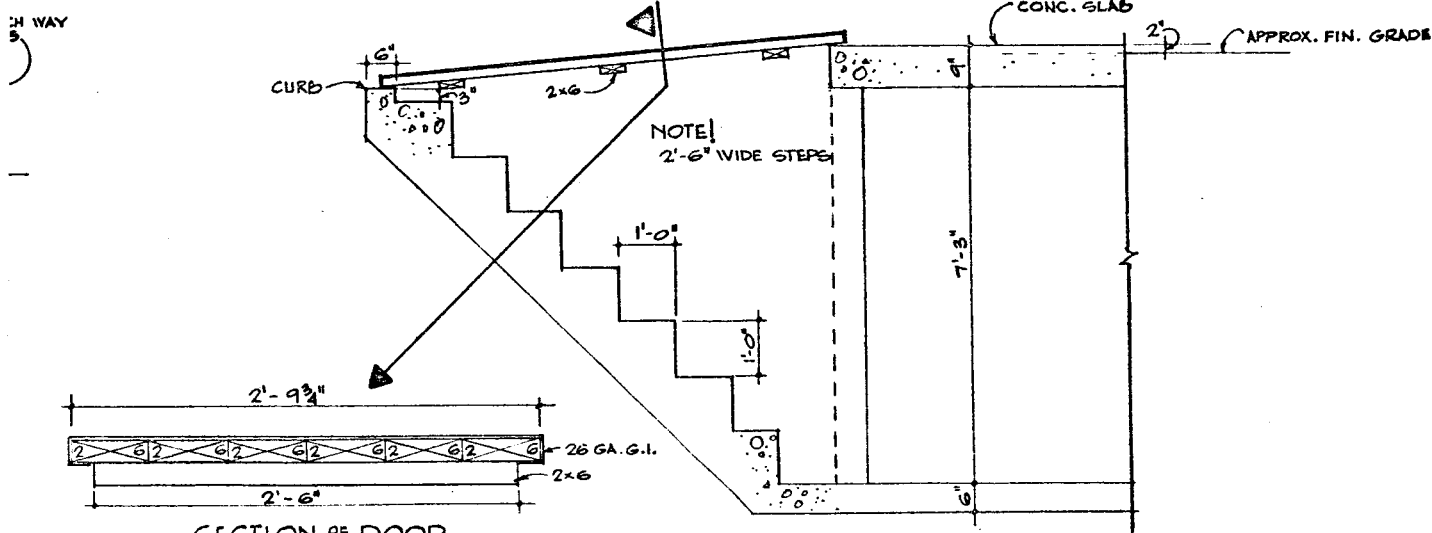
SCALE: $\frac{1}{8}" = 1'-0"$

NOTE!
ALL MEAS.
REINFORCE



WEST ELEVATION

SCALE: $\frac{1}{4}" = 1'-0"$



SECTION OF DOOR

SCALE: $\frac{1}{2}" = 1'-0"$

SECTION "B-B"

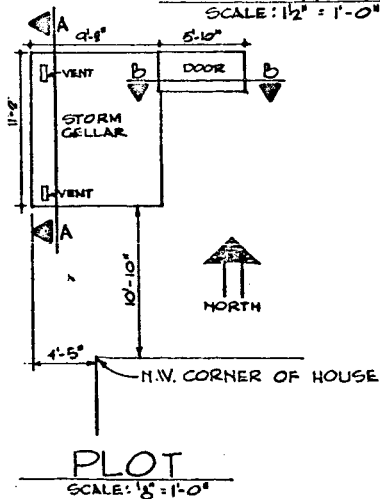
SCALE: $\frac{1}{2}" = 1'-0"$

NOTE!

ALL MEASUREMENTS VERIFIED EXCEPT THICKNESS OF FLOOR SLAB.
REINFORCEMENT ASSUMED.

STORM CELLAR DETAILS

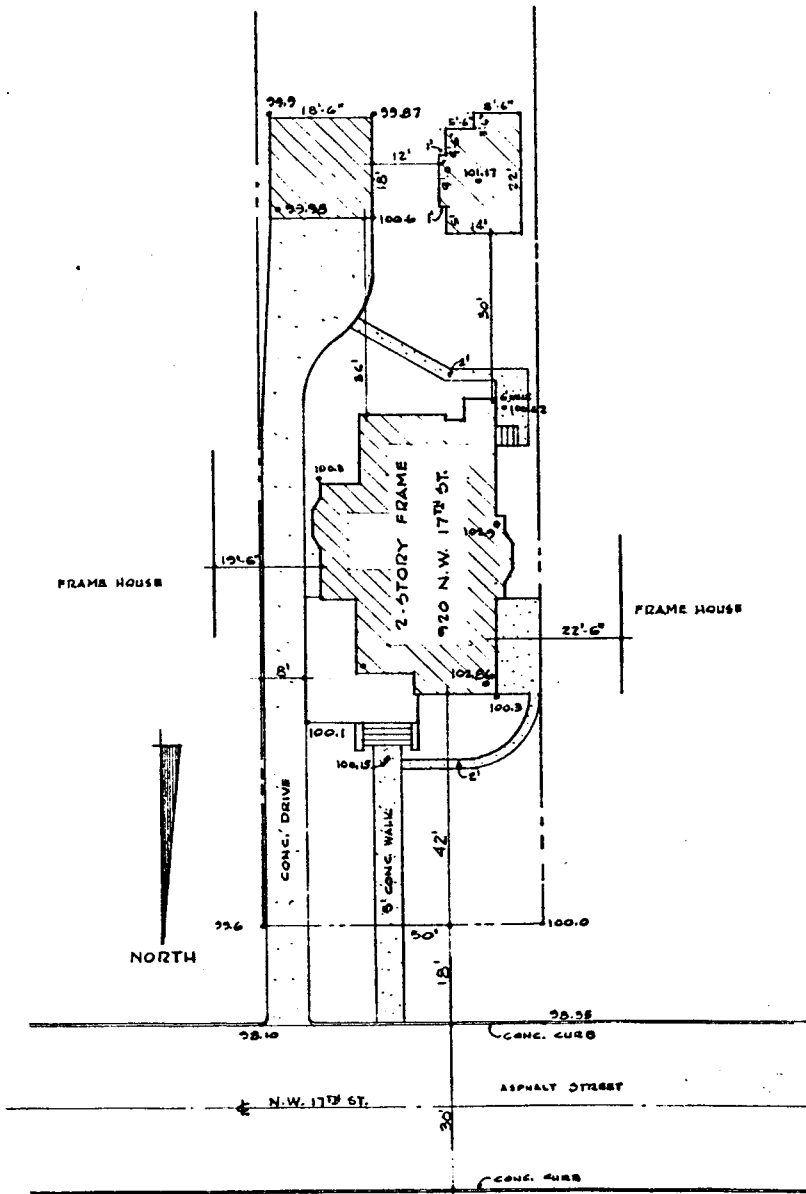
SCALE: AS NOTED



TEST HOUSE #4 4301 S.E. 16TH ST. OKLAHOMA CITY

PROJECT NO.		S.S.T. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY	
FILE NO.		DRAWN BY J.M.	
CHECKED BY		Hudgins, Thompson, Ball and Associates, Inc.	
DATE JANUARY 29, 1964		ARCHITECTS - ENGINEERS - PLANNERS 1411 CLARKSON BLVD. 700 MAYO BLDG. OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA	
SHEET NO. A-5		OF FIVE	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 16 of 30
TEST HOUSE NO. 5 (1 of 4)



PLOT PLAN

SCALE: 1"=20'

B.M. TOP FIRE PLUG @ S.W. COR. OF
N.W. 17th ST. & N. FRANCIS



ROOM FINISH SCHEDULE										
AREA NO.		FLOOR			WALLS		CLG.	COMMENTS		
		CARPET	PINE	OAK	LINOLEUM	CER. TILE				
1	FOYER									
2	LIVING									
3	DINING									
4	BREAKFAST									
5	BATH									
6	PARLOR									
7	KITCHEN									
8	ENTRY									
9	STORAGE									
10	STAIRCASE									
11	HALL									
12	BEDROOM									
13	BATH									
14	BEDROOM									
15	BEDROOM									
16	BEDROOM									
17	BEDROOM									


NOTE: WOOD BASE ALL ROOMS; CERAMIC TILE BATHROOM #13

DOOR SCHEDULE						
O Z	SIZE			TYPE	MATERIAL	COMMENTS
	HT.	W.	TH.			
1	7'-0"	3'-0"	1 3/4"	FULL GL.	WHITE PINE	IDEAL*ND-GSB W/ 2-18" SIDELIGHTS & TRAN.
2		2'-8"	1 3/4"	HALF GL.		WITH TRANOM
3		2'-8"	1 3/4"	5 PANEL		
4		2'-0"				
5		2'-6"				
6	8'-0"	3'-0"				
7	7'-0"	3'-0"	1"	STORM	ALUMINUM	GLASS & WIRE CLOTH
8		2'-8"	1 3/4"	SCREEN	WHITE PINE	WIRE CLOTH, IDEAL* T48

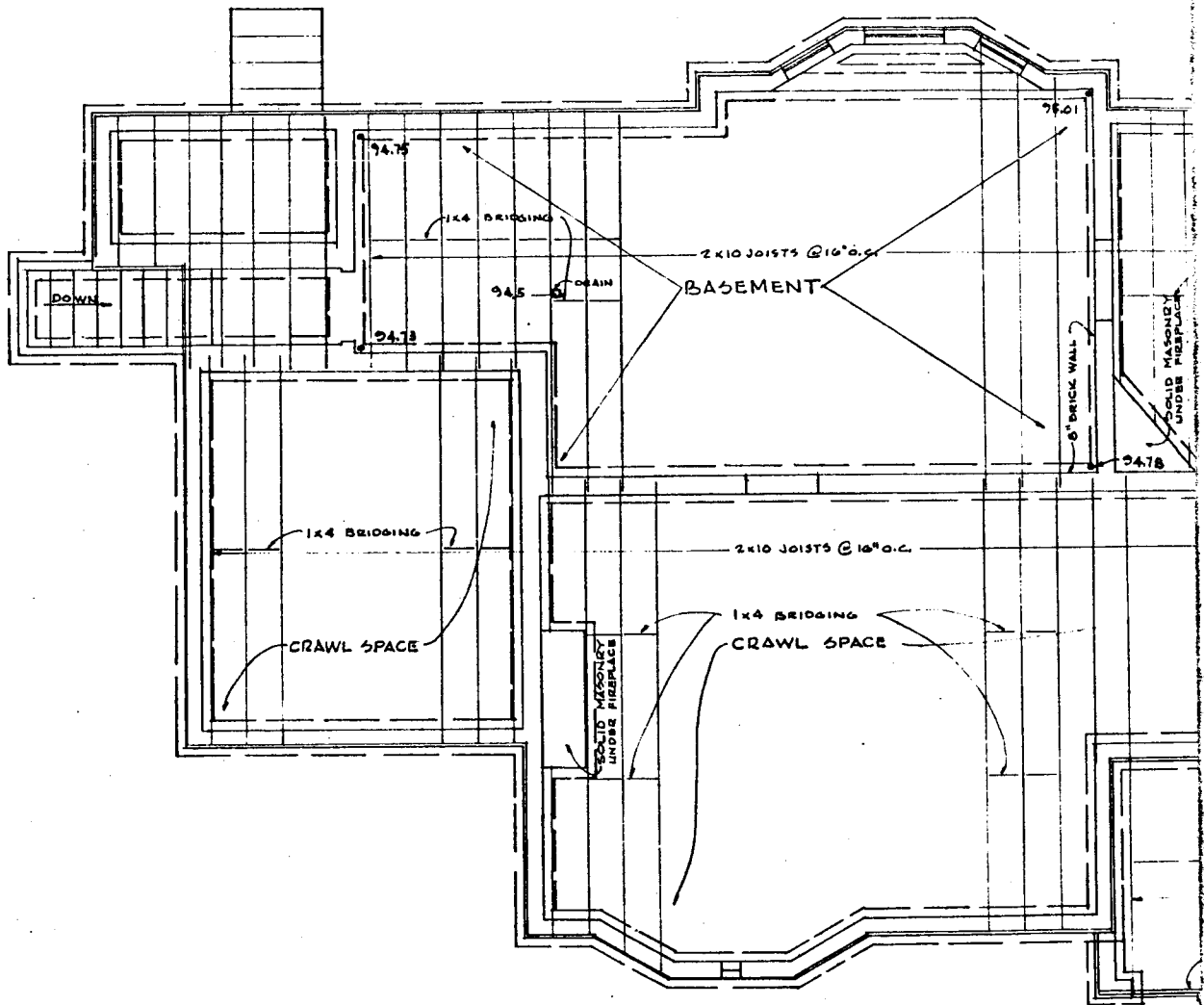
WINDOW SCHEDULE						
O Z	SIZE			TYPE	MATERIAL	COMMENTS
	HT.	W.	TH.			
A	6'-1"	3'-0"	1 3/8"	1/1 D.H.	WHITE PINE	
A		1'-8"				
A		2'-0"				
A		2'-0"				
A	5'-9"	2'-8"				
A	5'-2"	2'-8"				
A	4'-5"	4'-5 1/2"				
A		2'-0"				
A	5'-5"	3'-0"				
A		5'-10 1/2"				
A		2'-8"				
A		2'-0"				
A	5'-1 1/2"	2'-4"				
A	4'-5"	5'-1 1/2"				
A	2'-9"	2'-8"		ILT. CSMT		
A	2'-4"	3'-0"		ILT. FIXED		

NOTE: WINDOW DIMENSIONS ARE INSIDE JAMB TO JAMB & HEAD TO SILL.
* MODULAR DIMENSION - SEE PLAN FOR FRAC. DIM.

TEST HOUSE #5 920 N.W. 17th ST. OKLAHOMA CITY

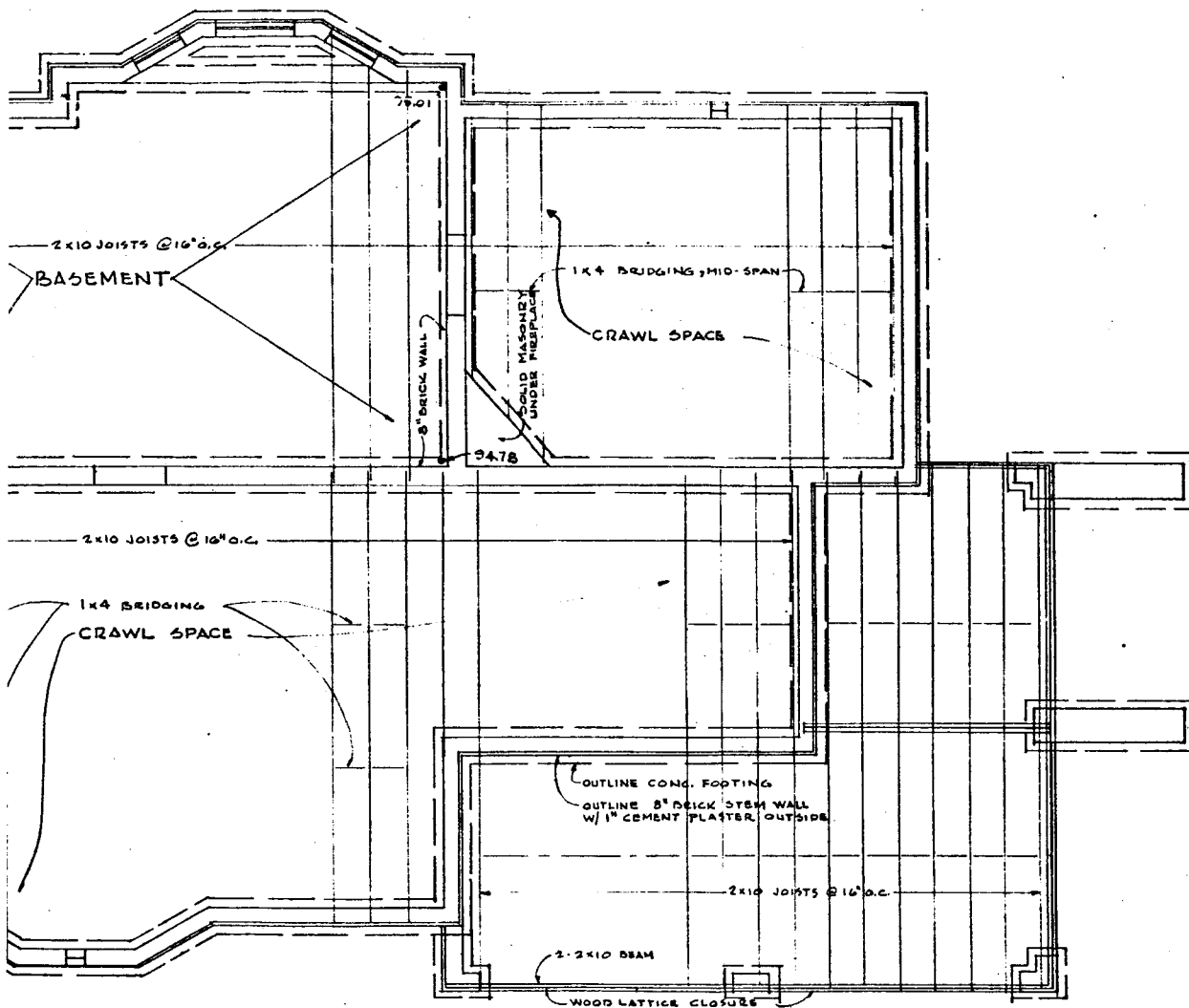
	PROJECT NO.	S.S.T. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY OKLAHOMA CITY		SHEET NO. A1 OF 8
	FILE NO.			
	DRAWN BY JC	Hudgins, Thompson, Ball and Associates, Inc.		
	TRACED BY			
DATE	CHECKED BY	ARCHITECTS - ENGINEERS - PLANNERS 1411 CLARKSON BLVD. 700 MAYO BLDG. OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA		

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 17 of 30
TEST HOUSE NO. 5 (2 of 4)



FOUNDATION & UNDERFLOOR FRAMING
SCALE: 1/4" = 1'-0"

A



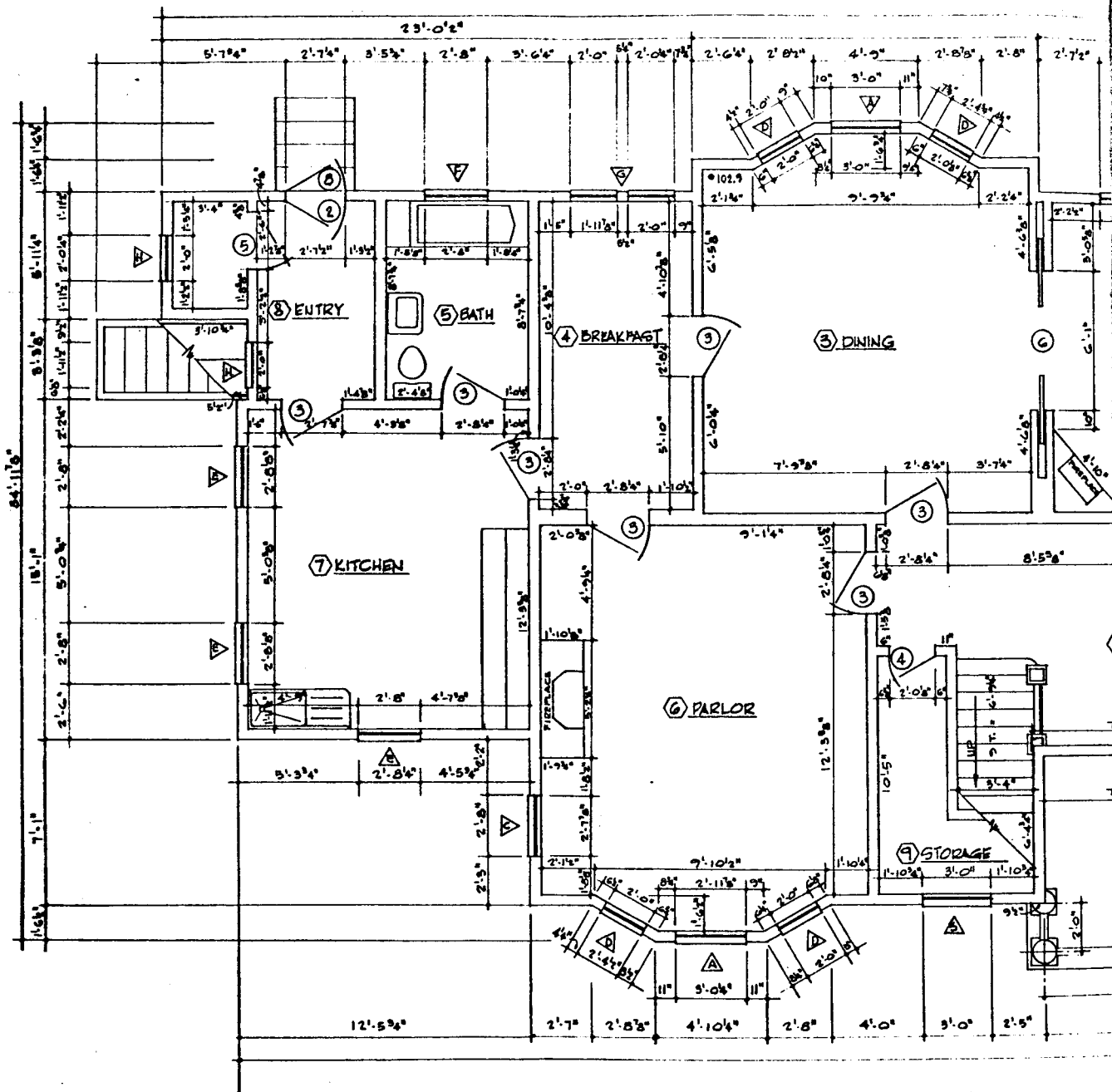
ION & UNDERFLOOR FRAMING PLAN

TEST HOUSE #5 920 N.W. 17TH OKLAHOMA CITY

8

PROJECT NO. 989 FILE NO.		G.S.T. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY	
		ARCHITECTS - ENGINEERS - PLANNERS Hudgins, Thompson, Ball and Associates, Inc. 1411 CLARSEN BLVD. OKLAHOMA CITY, OKLA. 700 MAYO BLDG. TULSA, OKLAHOMA	
DRAWN BY B.E. & J.	CHECKED BY	DATE	SHEET NO. A2 OF 8

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 18 of 30
TEST HOUSE NO. 5 (3 of 4)

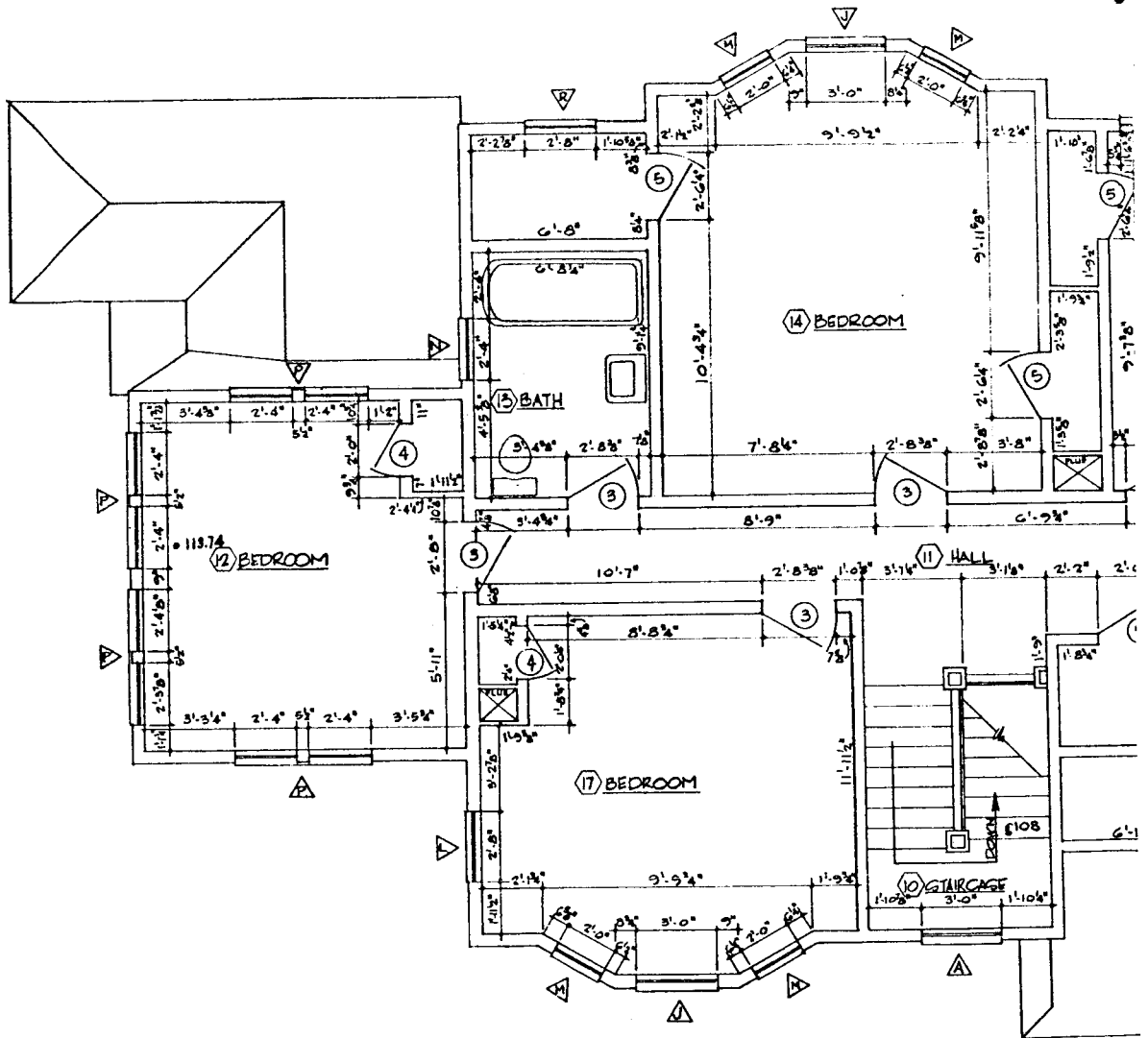


FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

NORTH

A

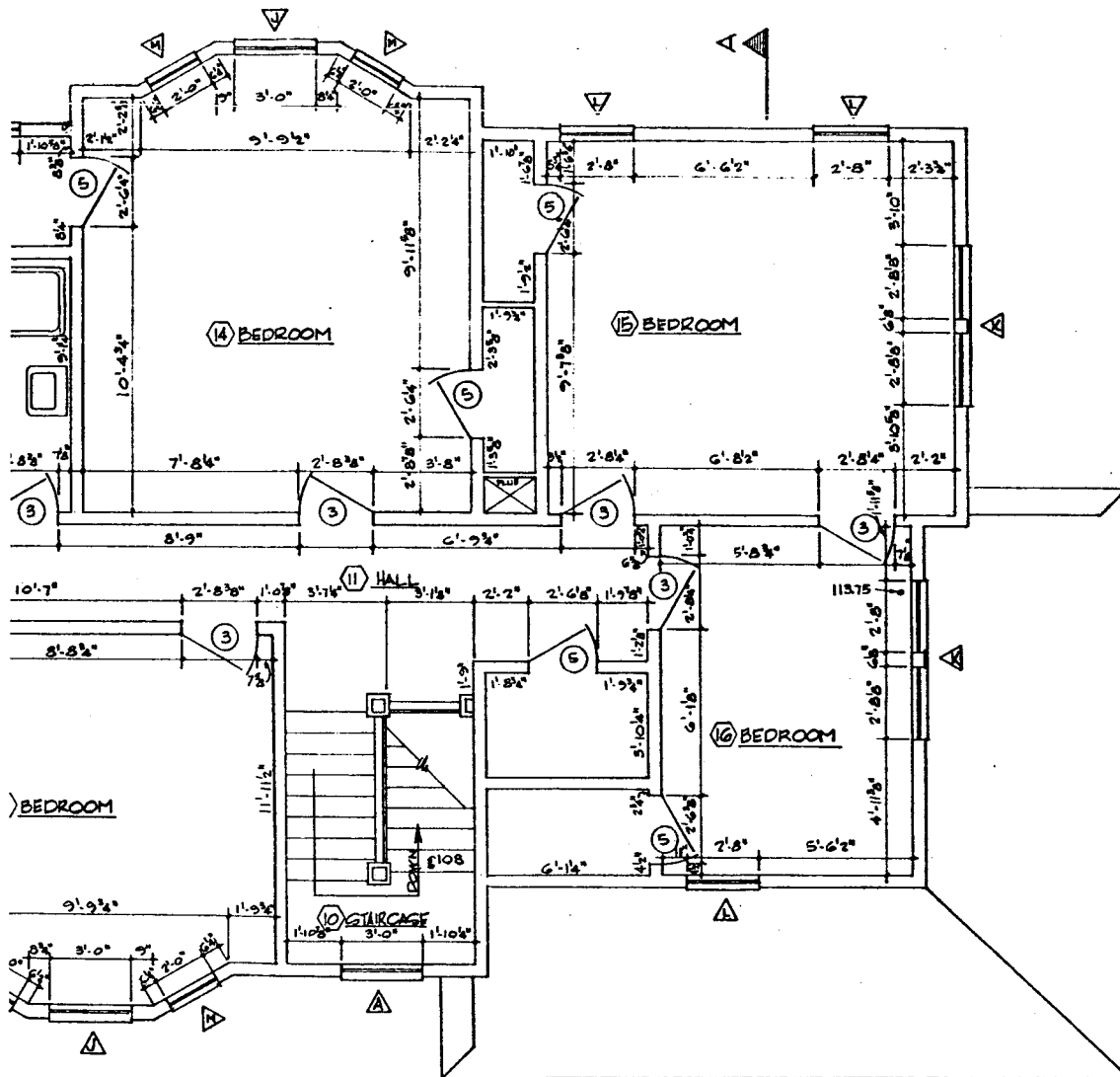
STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 19 of 30
TEST HOUSE NO. 5 (4 of 4)



SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"





SECOND FLOOR PLAN

ALL DIMENSIONS IN FEET

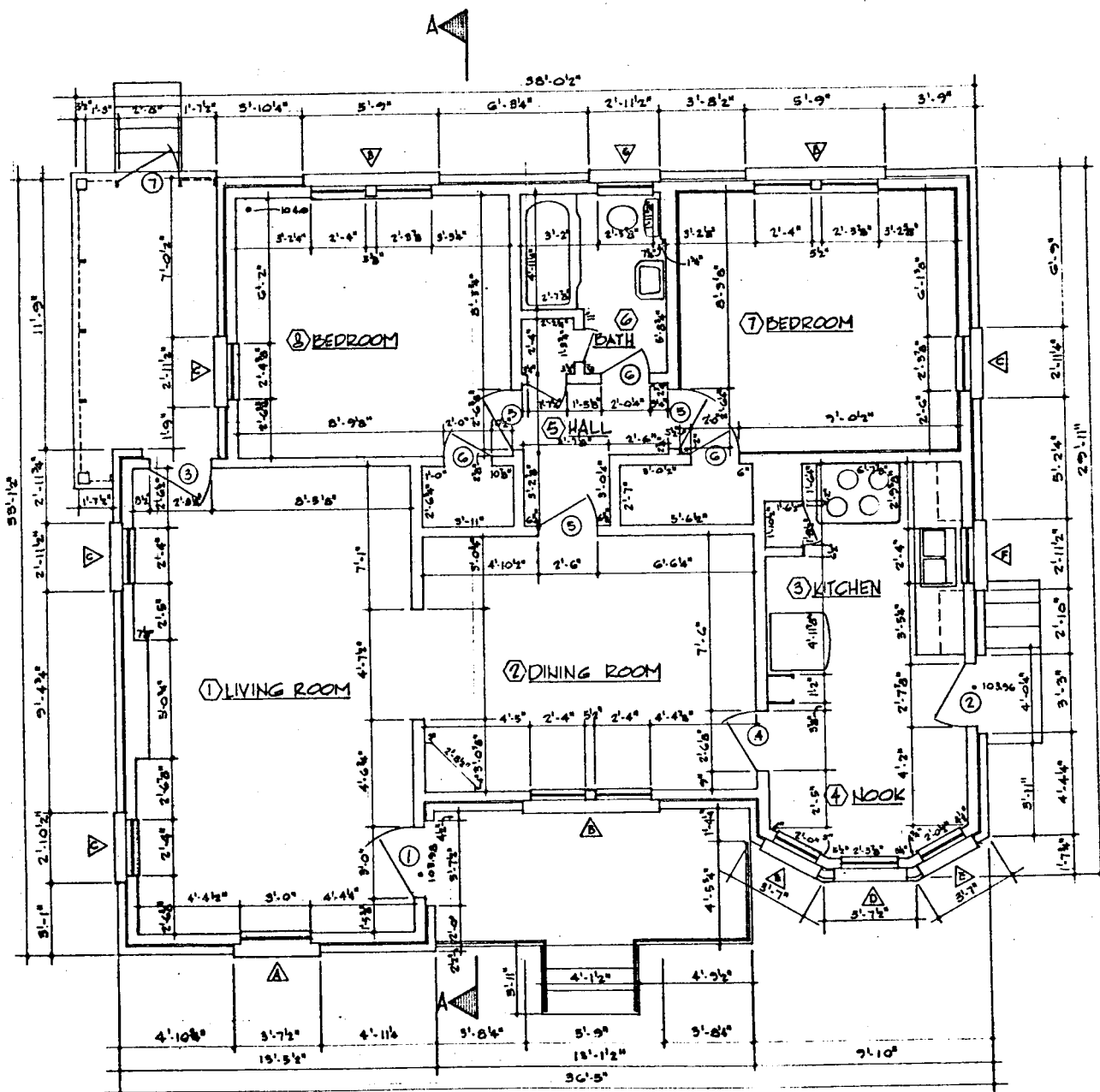


B

TEST HOUSE #5 920 N.W. 17TH OKLAHOMA CITY

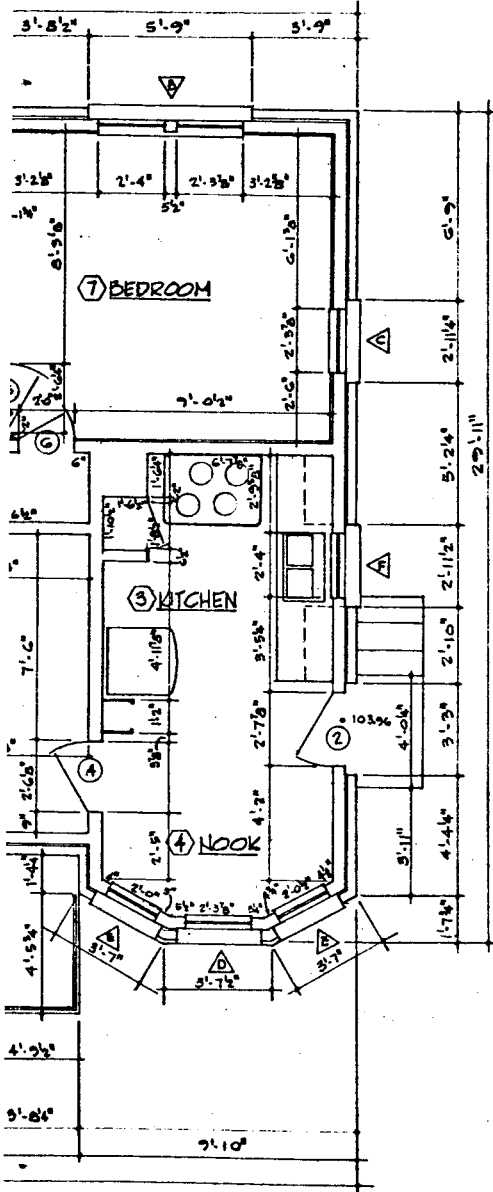
PROJECT NO. 1		SGT. PROGRAM TEST STRUCTURE		SHEET NO. A4
		FEDERAL AVIATION AGENCY OKLAHOMA CITY		
FILE NO.		DRAWN BY B.R.		
CHECKED BY		TRACED BY Hudgins, Thompson, Ball and Associates, Inc.		
DATE		1411 CLASSEN BLVD. 700 MAYO BLDG. OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA		

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 20 of 30
TEST HOUSE NO. 6 (1 of 1)



FLOOR PLAN
SCALE: 1/4" = 1'-0"

A



ROOM FINISH SCHEDULE

AREA NO.	DESIGNATION	FLOOR		WALLS		CLG.	COMMENTS
		CARPET	OAK	T.A. TILE	CER. TILE		
1	LIVING ROOM						
2	DINING ROOM						* WOOD WAINSCOT 2' 3" HIGH
3	KITCHEN						
4	NOOK						
5	HALL						
6	BATH						TILE WAINSCOT @ TUB 5' 5" HIGH
7	BEDROOM						
8	BEDROOM						

NOTE: WOOD BASE ALL ROOMS EXCEPT BATH, 4" CERAMIC TILE

DOOR SCHEDULE

D.N.	SIZE			TYPE	MATERIAL	COMMENT
	HT.	W.	TH.			
1	6'-8"	3'-0"	1 1/4"	PANEL	WHITE PINE	SLIDES 5.5.5 6x10
2		2'-8"				IDEAL * NO 549
3						NO 642
4		2'-6"	1 1/2"			NO 110
5						2 PANEL
6		2'-0"				
7		2'-8"	1'-8"	SCREEN		IDEAL * 747

WINDOW SCHEDULE

NO.	SIZE			TYPE	MATERIAL	COMMENTS
	HT.	W.	TH.			
1	5'-5"	3'-0"	1 1/2"	G/G D.H.	WHITE PINE	
2	4'-5"	3'-1 1/2"				
3		2'-4"				
4	3'-9"					
5		2'-0"				
6	2'-9"	2'-4"				
7	3'-5"					

NOTE: WINDOW DIMENSIONS ARE INSIDE JAMB TO JAMB & HEAD TO SILL.
* MODULAR DIMENSION - SEE PLAN FOR EXACT DIM.

TEST HOUSE #6 2908 N.W. 19TH ST. OKLAHOMA CITY

8



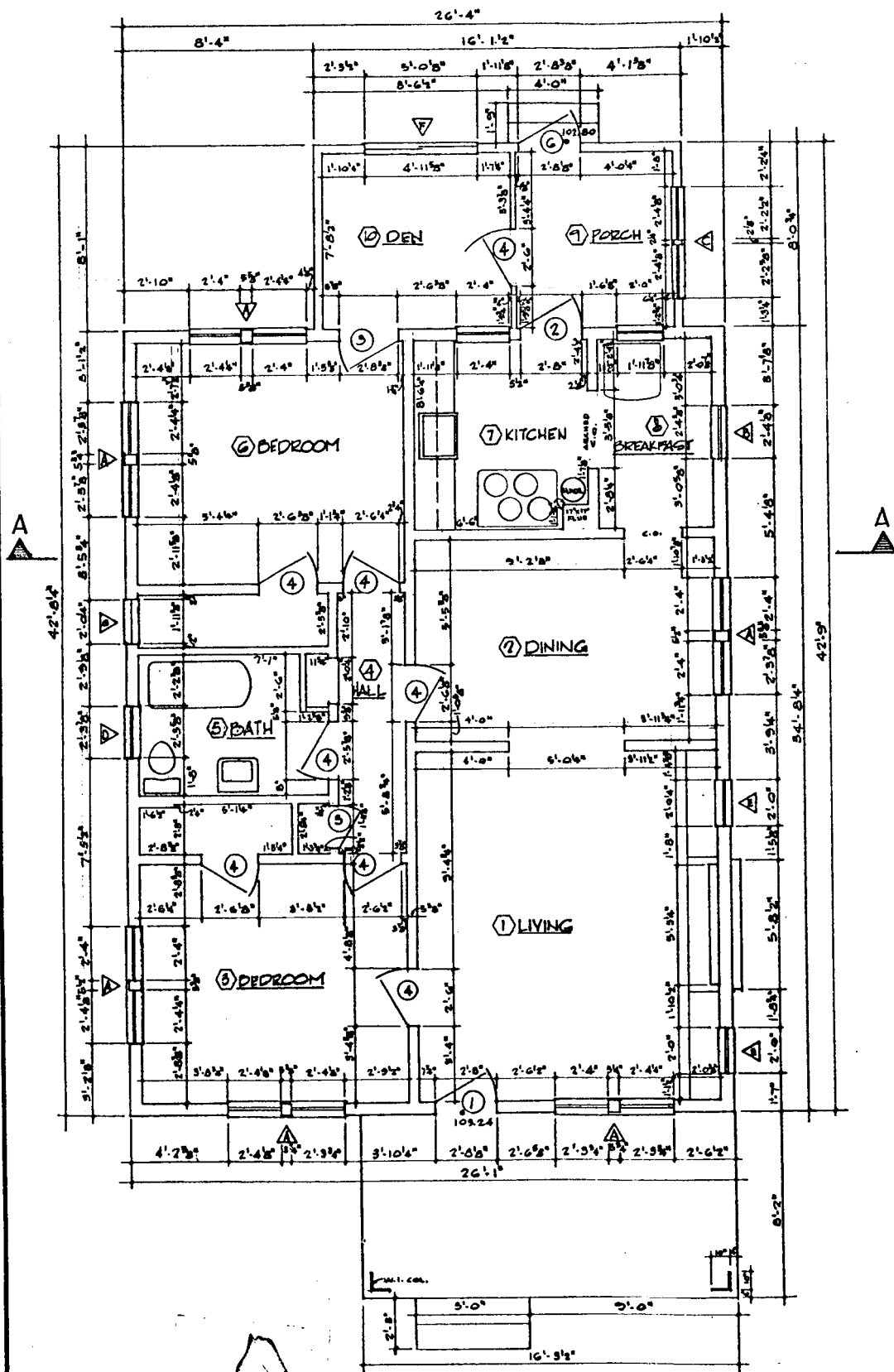
PROJECT NO.		G.G.T. PROGRAM TEST STRUCTURE	
FILE NO.		FEDERAL AVIATION AGENCY - OKLAHOMA CITY	
DRAWN BY B.R. L.V.	CHECKED BY	Hudgins, Thompson, Ball and Associates, Inc.	
DATE		1411 CLARKSON BLVD. OKLAHOMA CITY, OKLA. 700 MAYO BLDG. TULSA, OKLAHOMA	
		A3	

OF FIVE

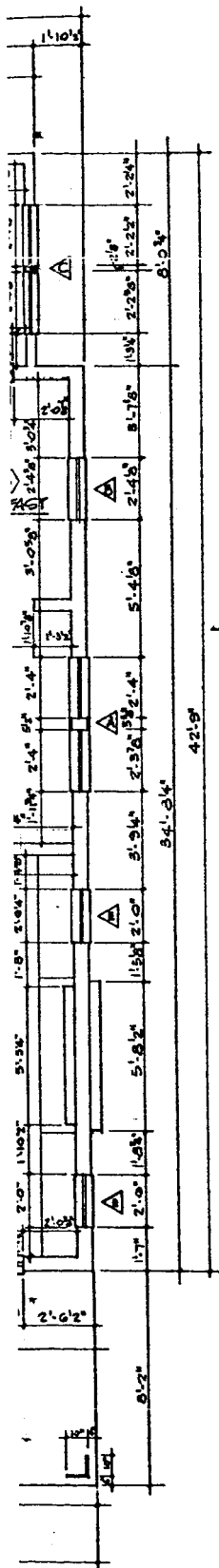
STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2

AS-BUILT DRAWINGS - SHEET 21 of 30

TEST HOUSE NO. 7 (1 of 1)



FLOOR PLAN
 SCALE: 1/4" = 1'-0"



ROOM FINISH SCHEDULE

AREA NO.	DESIGNATION	FLOOR	WALLS	CLG.	COMMENTS
		CARPET	PINE PLANK	ASPH/FLTL	
1	LIVING ROOM				
2	DINING ROOM				
3	BEDROOM				
4	HALL				
5	BATH				HARDBOARD WAINSCOT 4'-0"
6	BEDROOM				
7	KITCHEN				
8	BRKFST.				
9	PORCH				
10	DEN				

NOTE: WOOD BASE ALL ROOMS.

DOOR SCHEDULE

NO.	SIZE	TYPE	MATERIAL	COMMENTS
	HT. W. TH.			
1	6'-8" 2'-8" 1 1/4"	15 LITE-SSB	WHITE PINE	
2	2'-8" 2'-8" 1 1/4"	PANEL		4 PANEL - 1/2 GLASS (ND 549)
3	2'-8" 2'-8" 1 1/4"	2 PANEL		
4	2'-6" 2'-6" 1 1/4"			
5	2'-0" 2'-0" 1 1/4"			
6	2'-8" 2'-8" 1 1/4"	SCREEN		

WINDOW SCHEDULE

NO.	SIZE	TYPE	MATERIAL	COMMENTS
	HT. W. TH.			
1	4'-5" 5'-1 1/2" 1 1/4"	1/1 D.N.	WHITE PINE	
2	3'-9" 2'-4" 1 1/4"			
3	3'-5" 4'-7" 1 1/4"			
4	3'-0" 2'-4" 1 1/4"			
5	2'-0" 2'-0" 1 1/4"			
6	3'-0" 5'-0" 1 1/4"	HORIZ. SLID	ALUMINUM	
7	2'-2" 2'-0" 1 1/4"	FIXED GL.	WHITE PINE	

NOTE: ALL WINDOW DIMENSIONS ARE INSIDE JAMB TO JAMB, HEAD TO SILL.
* MODULAR DIMENSION. SEE PLAN FOR EXACT DIM.

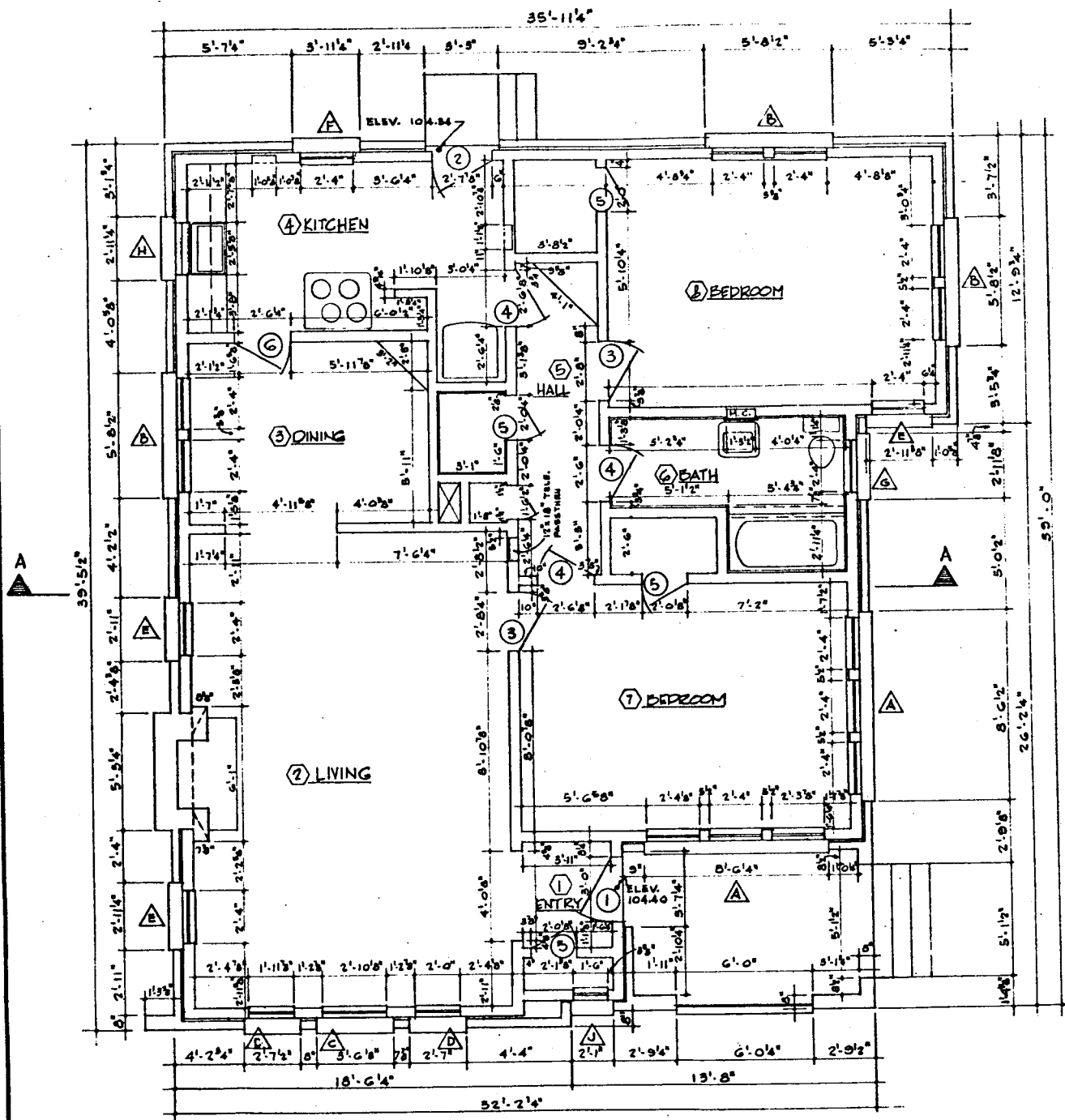
TEST HOUSE # 7 2912 N.W. 19TH ST. OKLAHOMA CITY

B

PROJECT NO.		GGT. PROGRAM TEST STRUCTURE F02	
FILE NO.		FEDERAL AVIATION AGENCY-OKLAHOMA CITY	
DRAWN BY S. Q. K.	TRACED BY	Hudgins, Thompson, Ball and Associates, Inc.	
CHECKED BY	DATE	1411 CLARKSON BLVD. 700 MAYO BLDG. TULSA, OKLAHOMA	

A3
OF 10

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 22 of 30
TEST HOUSE NO. 8 (1 of 1)



FLOOR PLAN

SCALE: 1/4" = 1'-0"





AREA NO.	DESIGNATION	FLOOR		WALLS		CLG.		COMMENTS	
		JOIST TYPEN	LINOLEUM	OAK PLNG	CERTILE	PLASTER	PRE-FINISH		WALL WP CERT. WST
①	ENTRY	○				○		○	
②	LIVING					○		○	
③	DINING		○		○	○		○	
④	KITCHEN		○		○	○		○	
⑤	HALL			○				○	
⑥	BATH				○			○	
⑦	BEDROOM			○				○	WAINCOT 5 1/2" @ 12" - 4' 5 1/2" CLOSEWHERE
⑧	BEDROOM			○				○	
⑨	ALL CLOSETS			○		○		○	HALL CLOSET CEDAR LINED

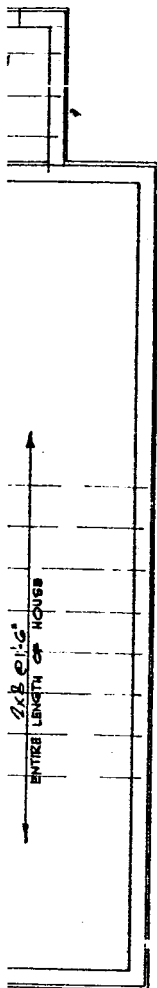
WINDOW DIMENSIONS ARE INSIDE JAMBS TO JAMB &
HEAD TO SILL. SEE PLAN FOR EXACT D.M.

TRST HOUSE # 8 - 2915 N.W. 19TH OKLAHOMA CITY

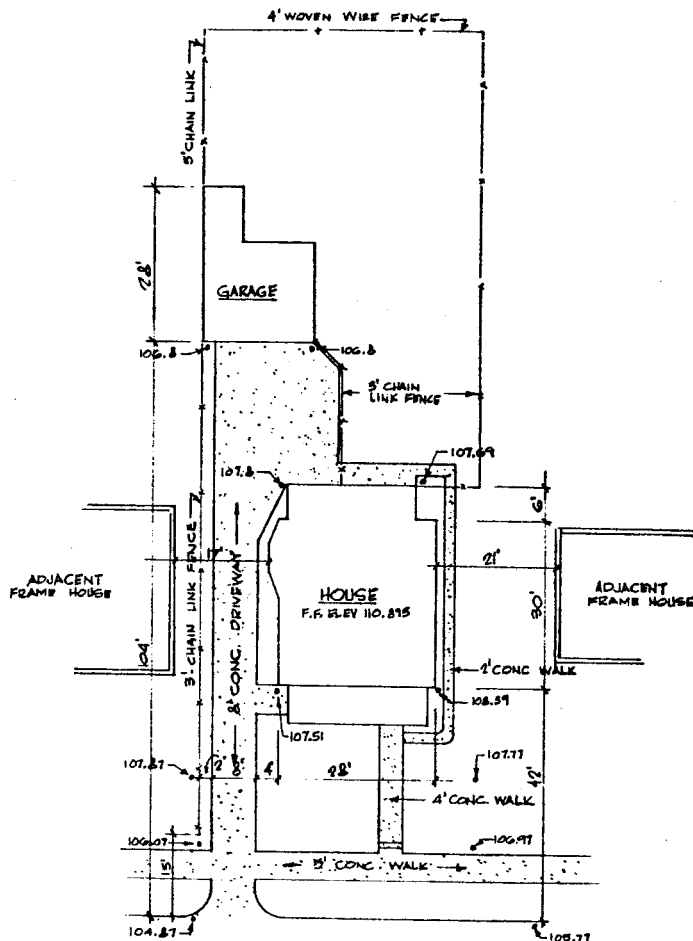
	PROJECT NO.	<u>S.S.I. PROGRAM</u> <u>TEST STRUCTURE</u> FOR <u>FEDERAL AVIATION AGENCY-OKLAHOMA CITY</u>		SHEET NO. <u>A-3</u> OF FIVE
	FILE NO.			
	DRAWN BY <u>B.R.T.K.</u>	<u>Hudgins, Thompson, Ball and Associates, Inc.</u> ARCHITECTS - ENGINEERS - PLANNERS 1411 CLASSEN BLVD. OKLAHOMA CITY, OKLA. 700 MAYO BLDG. TULSA, OKLAHOMA		
	TRACED BY			
DATE	CHECKED BY			

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 23 of 30
TEST HOUSE NO. 9 (1 of 3)

BASEMENT FLOOR
&
UNDERFLOOR FRAMING
 SCALE: 1/4" = 1'-0"



"A"



NORTH WEST PARK PLACE

B.M. - TOP FIRE HYDRANT N.W. CORNER W. PARK & N. WESTERN

PLOT PLAN

SCALE: 1" = 20'-0"

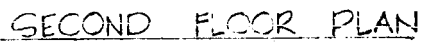
B



TEST HOUSE #9 - 1116 WEST PARK PLACE OKLAHOMA CITY

PROJECT NO.		G.S.I. PROGRAM TEST STRUCTURE	
FILE NO.		F08	
DRAWN BY		FEDERAL AVIATION AGENCY - OKLAHOMA CITY	
TRACED BY		Hudgins, Thompson, Bell and Associates, Inc.	
CHECKED BY		ARCHITECTS - ENGINEERS - PLANNERS 1411 CLARKSON BLVD. 700 MAYO BLDG. OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA	
DATE		DIRECTOR A-1 or FIVE	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 24 of 30
TEST HOUSE NO. 9 (2 of 3)



6



	PROJECT NO.	<u>S.S.T. PROGRAM</u> <u>TEST STRUCTURE</u> FOR <u>FEDERAL AVIATION AGENCY - OKLAHOMA CITY</u>		SHEET NO. <u>A-2</u> OF FIVE
	FILE NO.			
	DATE	DRAWN BY <u>B.R.</u> TRACED BY CHECKED BY 1411 CLASSEN BLVD. 700 MAYO BLDG. OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA	ARCHITECTS - ENGINEERS - PLANNERS <u>Hudgins, Thompson, Ball and Associates, Inc.</u>	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 25 of 30
TEST HOUSE NO. 9 (3 of 3)

WINDOW SCHEDULE

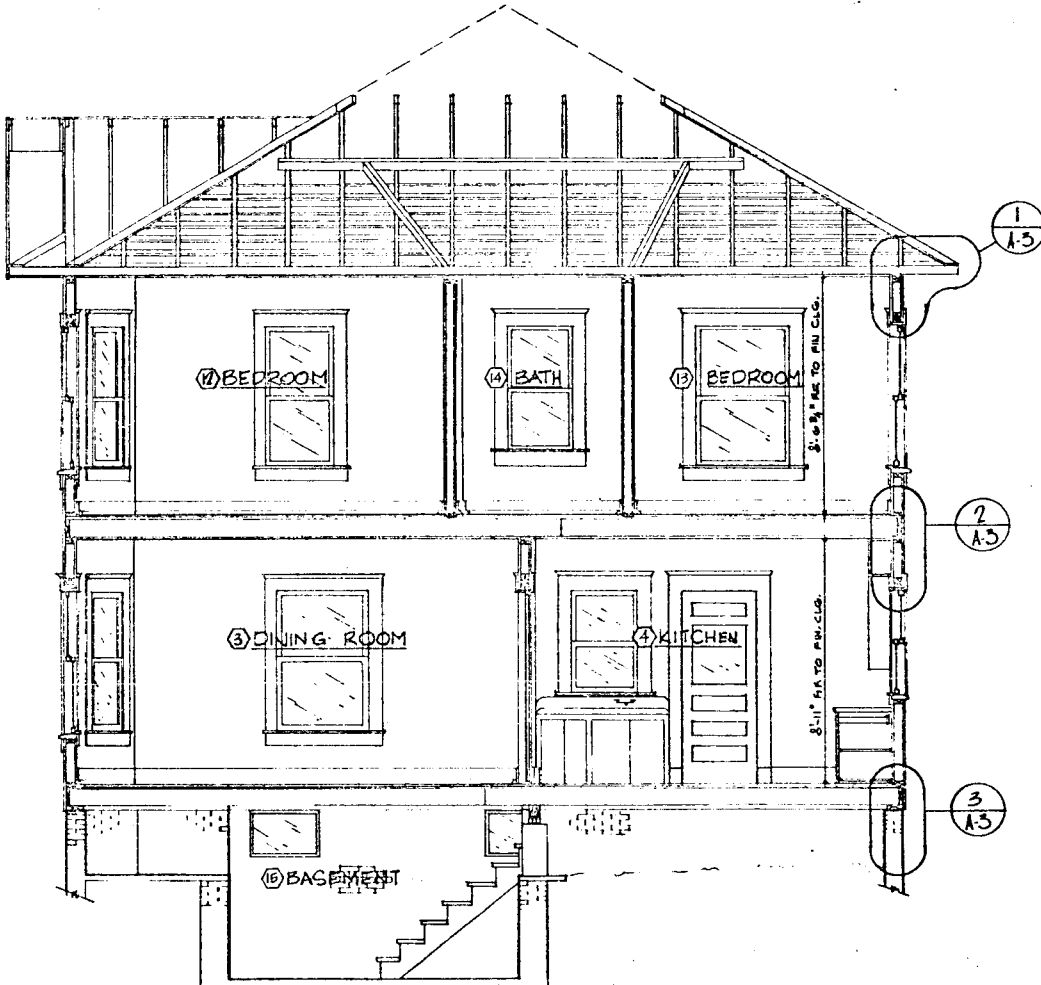
MARK	W	H	TYPE	TYPE
1	3'-0"	6'-0"	DOOR	D.W. WOOD
2	3'-4"	"	"	"
3	2'-10"	"	"	"
4	2'-10"	2'-9 1/2"	"	"
5	2'-8"	3'-9 1/2"	"	"
6	2'-6"	5'-1"	"	"
7	2'-6"	3'-0"	"	"
8	2'-4"	4'-2"	"	"
9	2'-4"	3'-9"	"	"
10	2'-6"	4'-5"	"	"
11	2'-4"	1'-5"	1	FIRE BASEMENT
12	2'-8"	2'-0"	2	" CORNER

DOOR SCHEDULE

MARK	W	H	T	TYPE
1	3'-0"	7'-0"	1 3/4"	ND
2	2'-8"	7'-0"	1 3/4"	ND
3	2'-8"	7'-0"	1 3/8"	ND
4	2'-8"	7'-0"	"	"
5	2'-6"	"	"	"
6	2'-6"	6'-5"	"	"
7	2'-0"	7'-0"	"	"
8	2'-0"	6'-5"	1 3/8"	H.C.
9	3'-0"	7'-0"	1 1/2"	W.P.C.
10	2'-8"	6'-8"	"	"

ROOM FINISH SCHEDULE

MARK	DESIGNATION	FLOOR	
		FINE FLGR	LINOLEUM
1	FOYER	○	○
2	LIVING ROOM	○	○
3	DINING ROOM	○	○
4	KITCHEN	○	○
5	PANTRY	○	○
6	BATH	○	○
7	SCREENED PORCH	○	○
8	STAIR	○	○
9	HALL	○	○
10	BEDROOM	○	○
11	"	○	○
12	"	○	○
13	"	○	○
14	BATH	○	○
15	BASEMENT	○	○



SECTION 'A-A'
SCALE 1/4" = 1'-0"

A

WINDOW SCHEDULE

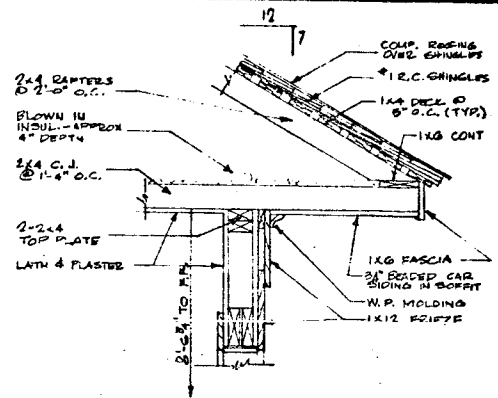
MARK	W	H	LGES	TYPE
V	3'-8"	5'-1"	10/11"	D.H. WOOD - 1/4" SH
V	3'-4"	"	"	"
V	2'-10"	"	"	"
V	2'-10"	3'-7 1/2"	"	"
V	2'-8"	2'-7 1/2"	"	"
V	2'-6"	5'-1"	"	"
V	2'-6"	3'-9"	"	"
V	2'-4"	4'-5"	"	"
V	2'-4"	3'-9"	"	"
V	2'-0"	4'-5"	"	"
V	2'-4"	1'-8"	1	FIXED BASEMENT GASH
V	2'-8"	2'-0"	2	" DORMER "

DOOR SCHEDULE

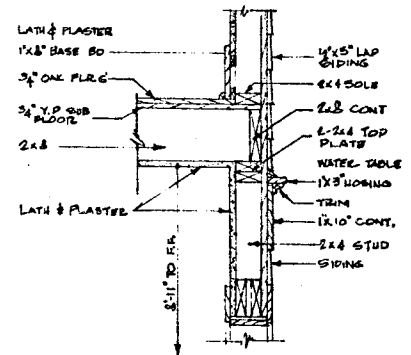
MARK	W	H	T	TYPE
(1)	3'-0"	7'-0"	1 3/4"	ND G35 1 LITE MILLED
(2)	2'-8"	7'-0"	1 3/4"	ND E49
(3)	2'-8"	7'-0"	1 3/8"	ND 102 2 PANEL MILLED
(4)	2'-8"	7'-0"	"	" (PAIR)
(5)	2'-6"	"	"	"
(6)	2'-0"	6'-5"	"	"
(7)	2'-0"	7'-0"	"	"
(8)	2'-0"	6'-5"	1 3/8"	H.C. SLAB
(9)	5'-0"	7'-0"	1 3/8"	W.P. GREEN DOOR
(10)	2'-8"	6'-5"	"	" " W/STORM GASH

ROOM FINISH SCHEDULE

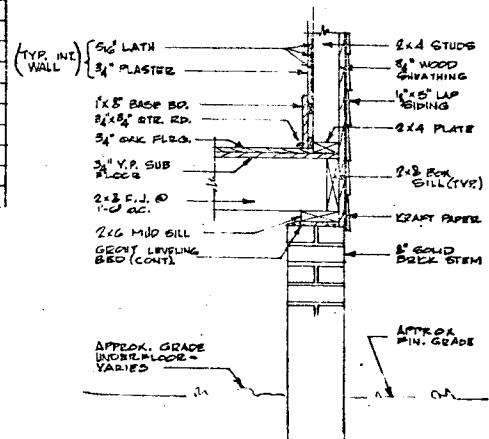
MARK	DESIGNATION	FLOOR			WALLS		CLG	COMMENTS	
		FINE FLRG	LINOLEUM	CONC	PAPER & PLAS.	EXP STUDS	BRICK		PAPER & PLAS.
(1)	FOYER	○			○			○	
(2)	LIVING ROOM	○			↑			↑	
(3)	DINING ROOM				↑			↑	
(4)	KITCHEN		○						
(5)	PANTRY	○			↑			↑	
(6)	BATH		○						
(7)	SCREENED PORCH				○			○	
(8)	STAIR	○			○			○	
(9)	HALL				↑			↑	
(10)	BEDROOM								
(11)	"	○			↑			↑	
(12)	"	○			↑			↑	
(13)	"	○			↑			↑	
(14)	BATH		○		○			○	
(15)	BASEMENT		○				○		○



(1) A3 DETAIL



(2) A3 DETAIL



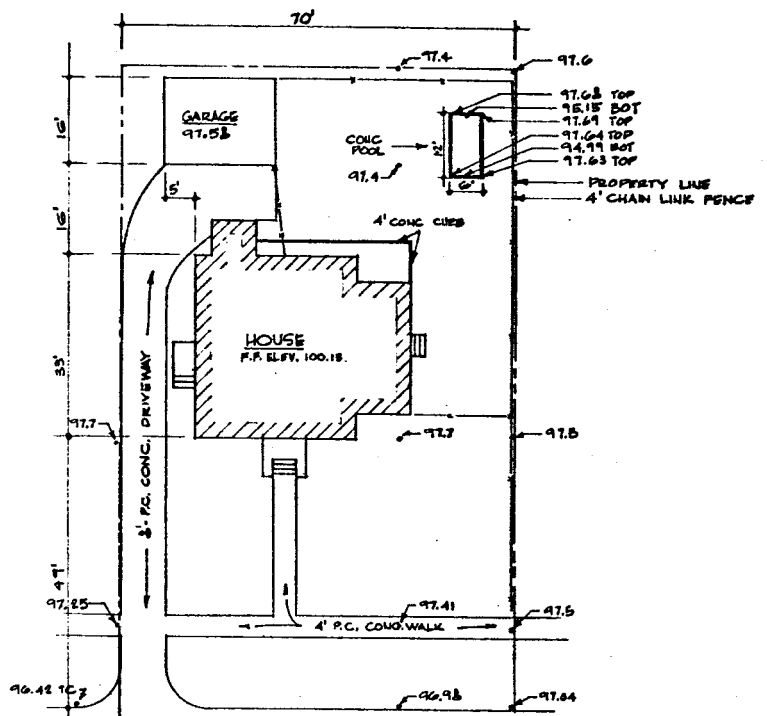
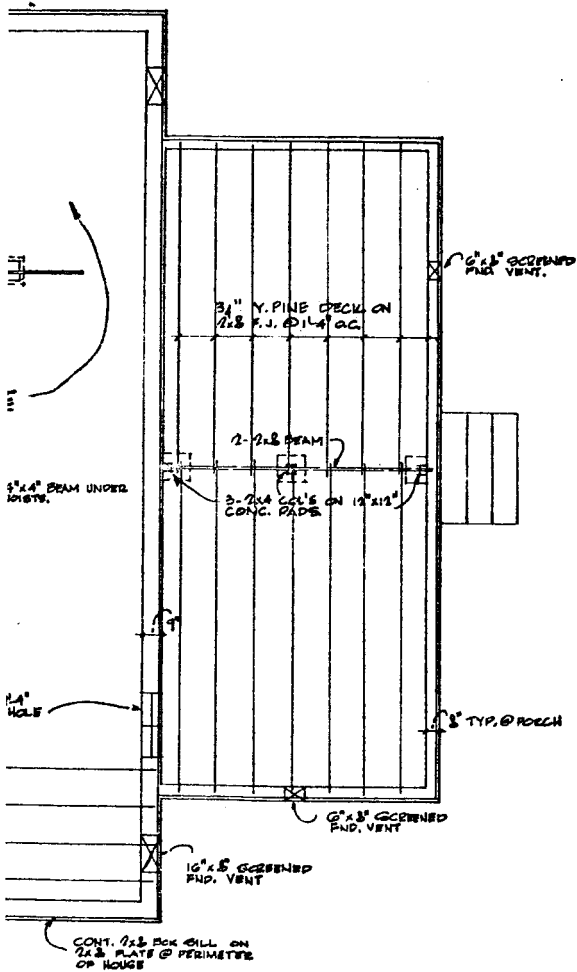
(3) A3 DETAIL

TEST HOUSE # 9 - 1116 WEST PARK PLACE OKLAHOMA CITY

B

PROJECT NO.		G.S.T. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY - OKLAHOMA CITY	
FILE NO.		Hudgins, Thompson, Ball and Associates, Inc.	
DRAWN BY S.R.	CHECKED BY	ARCHITECTS - ENGINEERS - PLANNERS 1811 CLASSEN BLVD. 700 MAYO BLDG.	SHEET NO. A-3 OF FIVE
DATE			

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 26 of 30
TEST HOUSE NO. 10 (1 of 3)



WEST BROOKS

B.M. - TOP FEE HYDANT S-W CORNER BROOKS & LAHOMA 100.00

PLOT PLAN
SCALE: 1"=20'



MING PLAN

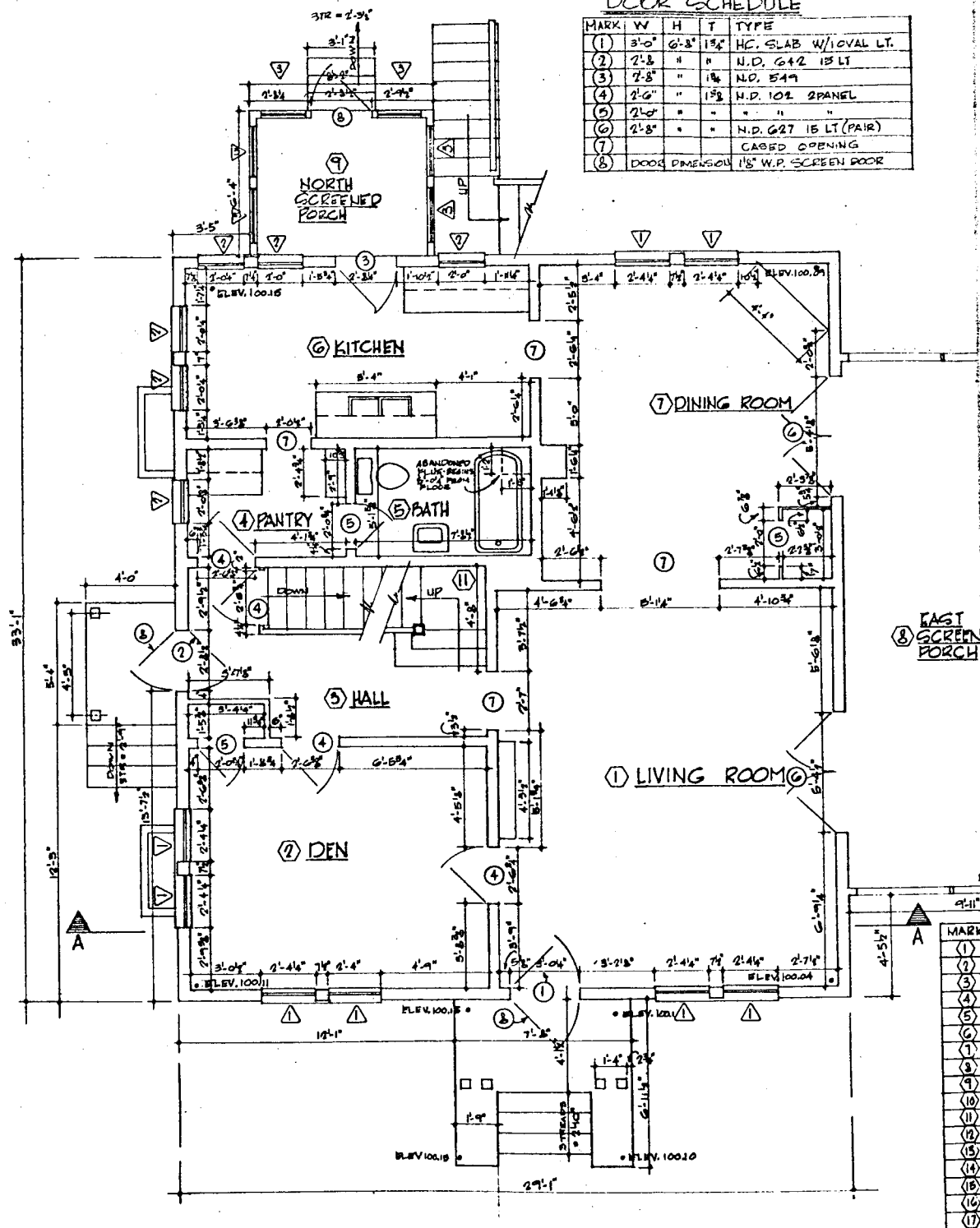
TEST HOUSE #10 - 203 W. BROOKS NORMAN, OKLAHOMA

PROJECT NO.		S.G.T. PROGRAM	
FILE NO.		TEST STRUCTURE	
		FOR	
		FEDERAL AVIATION AGENCY - OKLAHOMA CITY	
DRAWN BY B.R.	Hudgins, Thompson, Ball and Associates, Inc.		SHEET NO. A-1
TRACED BY	ARCHITECTS - ENGINEERS - PLANNERS		
CHECKED BY	1411 CLARKSON BLVD. OKLAHOMA CITY, OKLA. 700 MAYO BLDG. TULSA, OKLAHOMA		
DATE			

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 27 of 30
TEST HOUSE NO. 10 (2 of 3)

DOOR SCHEDULE

MARK	W	H	T	TYPE
(1)	3'-0"	6'-8"	18"	H.C. SLAB W/10VAL LT.
(2)	2'-8"	"	"	N.D. G+2 15 LT
(3)	2'-8"	"	18"	N.D. 549
(4)	2'-6"	"	18"	N.D. 102 2 PANEL
(5)	2'-0"	"	"	" " "
(6)	2'-8"	"	"	N.D. G27 15 LT (PAIR)
(7)				CABED OPENING
(8)	DOOR	DIMENSION	18"	W.P. SCREEN DOOR



FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

LOCALS: $1_4'' = 1-0''$

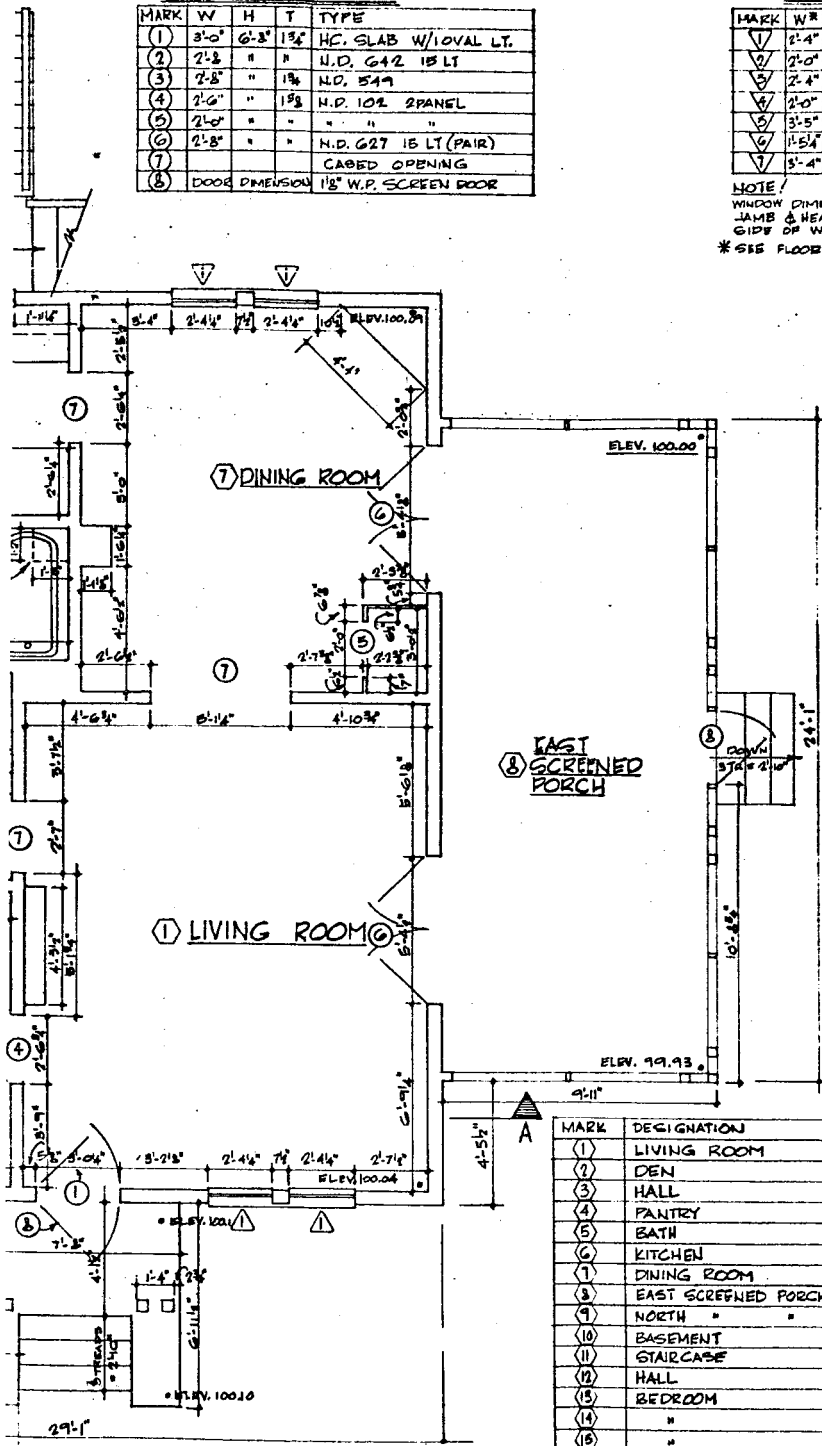
DOOR SCHEDULE

MARK	W	H	T	TYPE
(1)	3'-0"	6'-8"	13'	H.C. SLAB W/10VAL LT.
(2)	2'-8"	"	"	N.D. 642 15 LT
(3)	2'-8"	"	19'	N.D. 549
(4)	2'-6"	"	19'	N.D. 102 2PANEL
(5)	2'-0"	"	"	"
(6)	2'-8"	"	"	N.D. 622 15 LT (PAIR)
(7)	"	"	"	CABED OPENING
(8)	DOOR DIMENSION 18" W.P. SCREEN DOOR			

WINDOW SCHEDULE

MARK	W*	HT	LIGHTS	TYPE
(1)	2'-4"	4'-6"	4 OVER 1	D.H. WOOD
(2)	2'-0"	3'-2 1/2"	1 - 1	"
(3)	2'-4"	3'-6"	1 - 1	"
(4)	2'-0"	3'-10"	3 - 1	"
(5)	3'-5"	3'-2 1/2"	5 - 1	"
(6)	1'-5 1/2"	3'-10"	1	FIXED WOOD SASH
(7)	3'-4"	1'-8"	3 LT	STEEL HOPPER SASH

NOTE:
WINDOW DIMENSIONS ARE TAKEN FROM JAMB TO JAMB & HEAD JAMB TO WDN STOOD. FROM ROOM SIDE OF WDN UNIT.
*SEE FLOOR PLAN FOR EXACT DIMENSION.

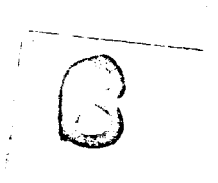


MARK	DESIGNATION	WALLS		FLOOR		CLG		COMMENTS
		PAPER/PLASTER	EXP. STRUCTURE	OAK FLRG.	PINE & PAULT	PAPER/PLASTER	EXP. STRUCTURE	
(1)	LIVING ROOM							
(2)	DEN							
(3)	HALL							
(4)	PANTRY							
(5)	BATH							
(6)	KITCHEN							
(7)	DINING ROOM							
(8)	EAST SCREENED PORCH							
(9)	NORTH "							
(10)	BASEMENT							
(11)	STAIRCASE							
(12)	HALL							
(13)	BEDROOM							
(14)	"							
(15)	"							
(16)	"							
(17)	BATH							

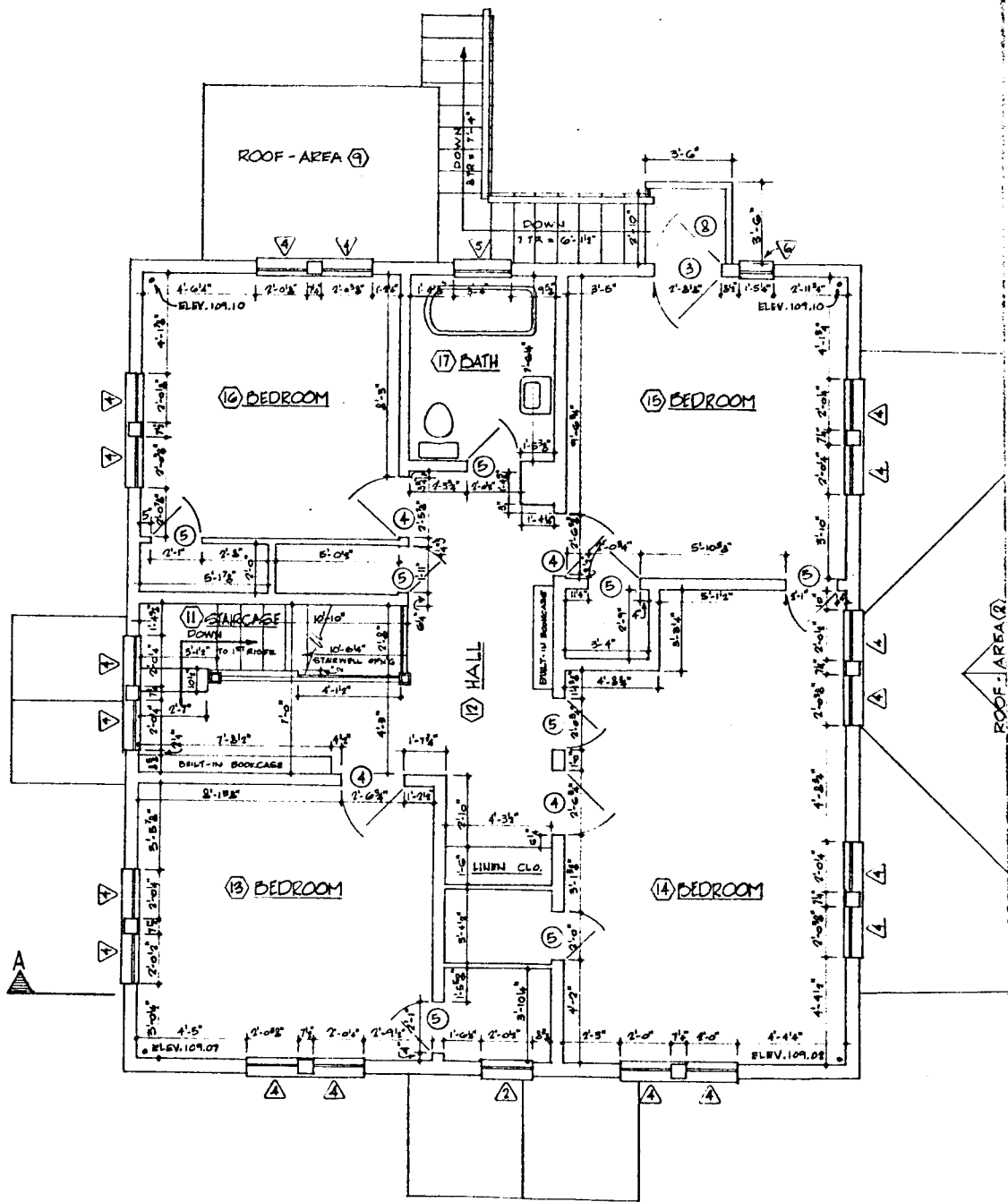
ROOM FINISH SCHEDULE

DOOR PLAN

TEST HOUSE #10 - 203 W. BROOKS NORMAN, OKLAHOMA

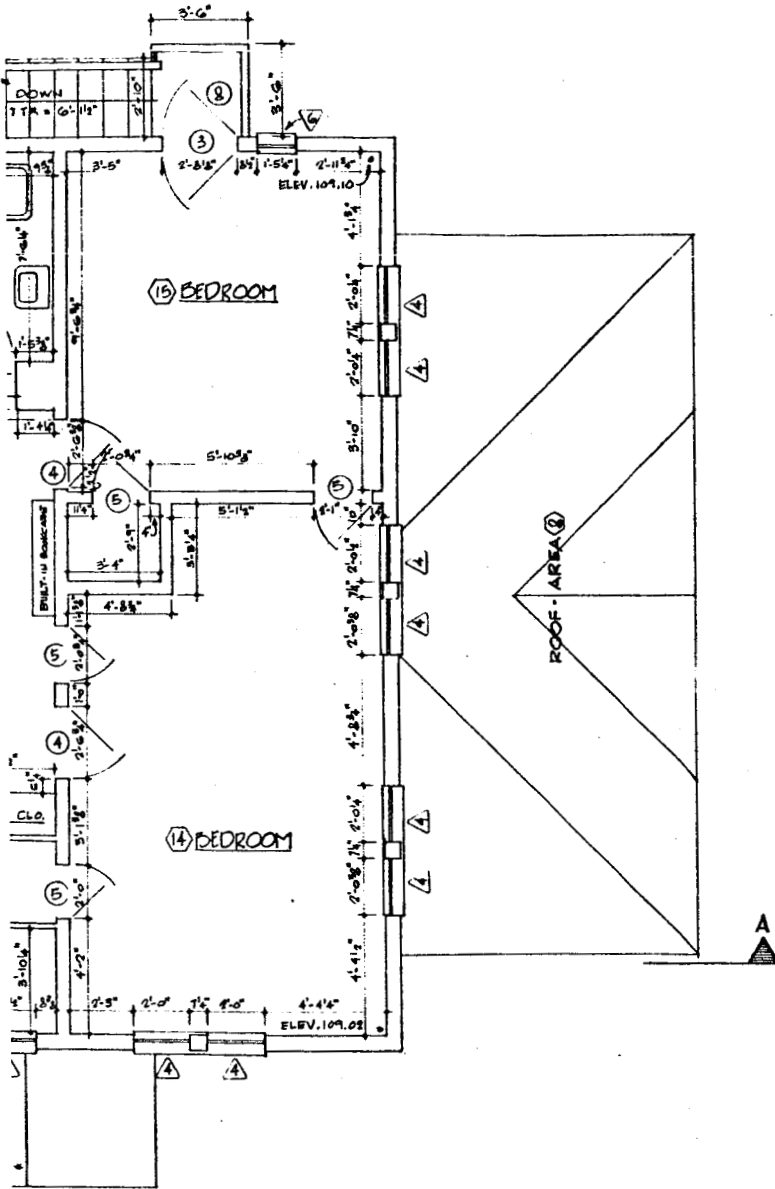
	PROJECT NO. 15	G.S.T. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY	
	FILE NO.		
	DRAWN BY B.R.	Hudgins, Thompson, Bell and Associates, Inc. ARCHITECTS - ENGINEERS - PLANNERS 1411 CLAREN BLVD. OKLAHOMA CITY, OKLA. 700 MAYO BLDG. TULSA, OKLAHOMA	
	TRACED BY		
CHECKED BY	DATE	SHEET NO. A-2 OF SIX	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 28 of 30
TEST HOUSE NO. 10 (3 of 3)



SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

A



PLAN

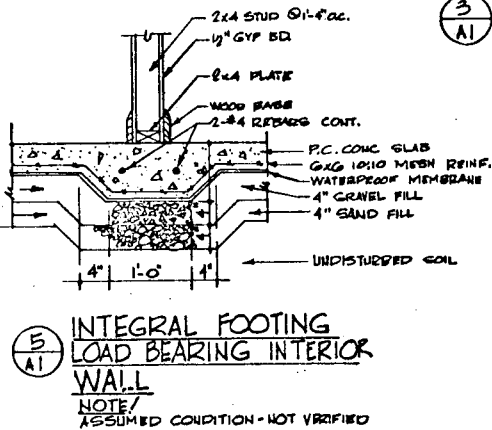
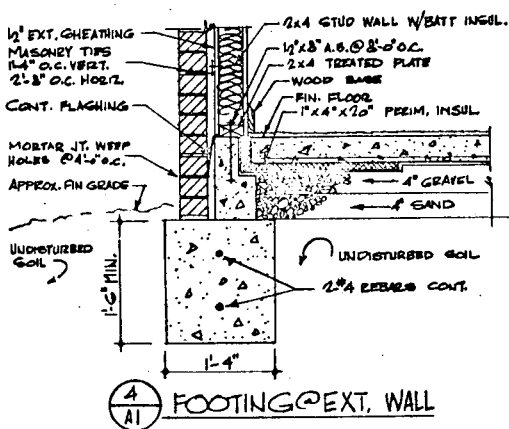
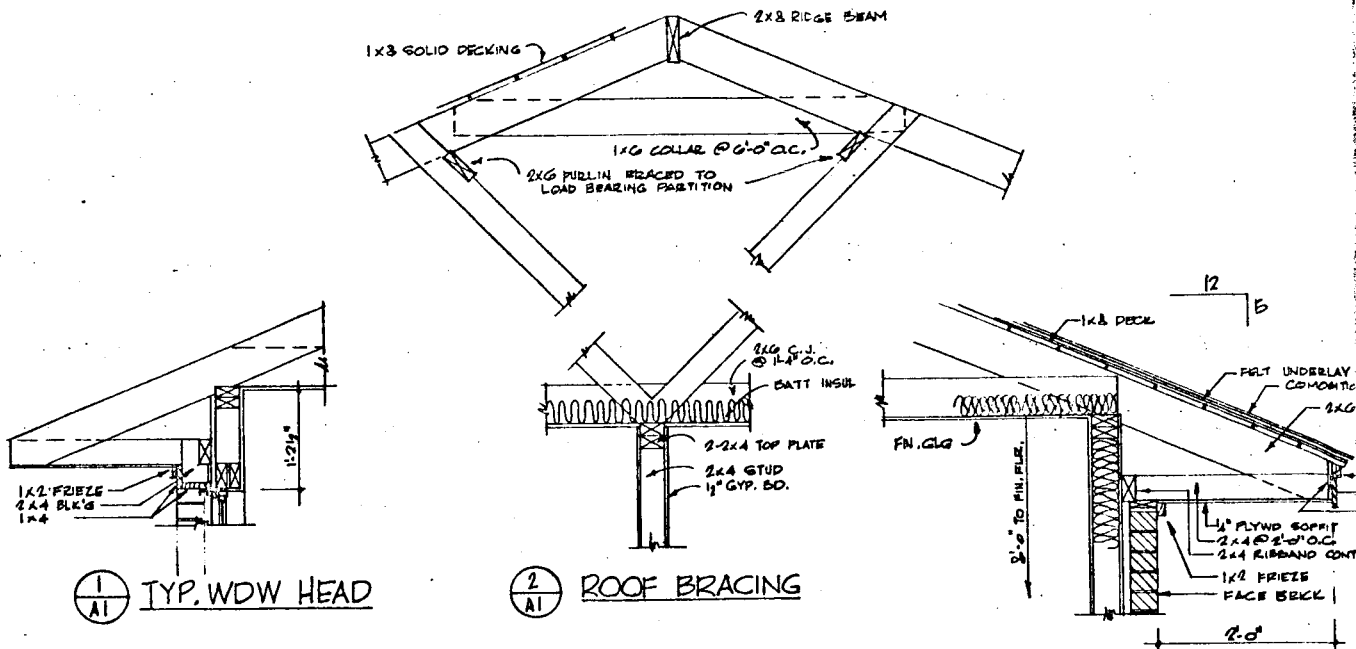
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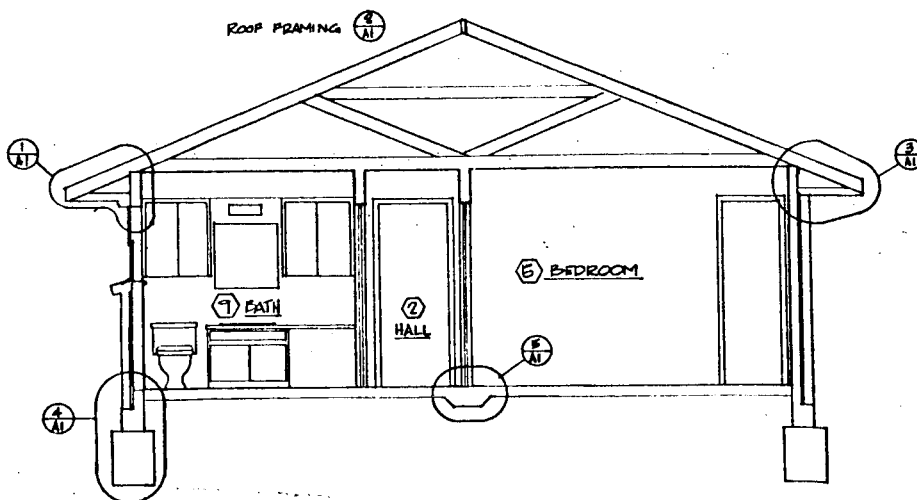
TEST HOUSE #10 - 803 W. BROOKS NORMAN, OKLAHOMA

PROJECT NO.		S.S.T. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY		SHEET NO.
FILE NO.		Hudgins, Thompson, Ball and Associates, Inc.		A3
DRAWN BY B.R.		ARCHITECTS - ENGINEERS - PLANNERS		OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA
TRACED BY		1411 CLARKSON BLVD. 700 MAYO BLDG.		OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA
CHECKED BY		DATE		OKLAHOMA CITY, OKLA. TULSA, OKLAHOMA

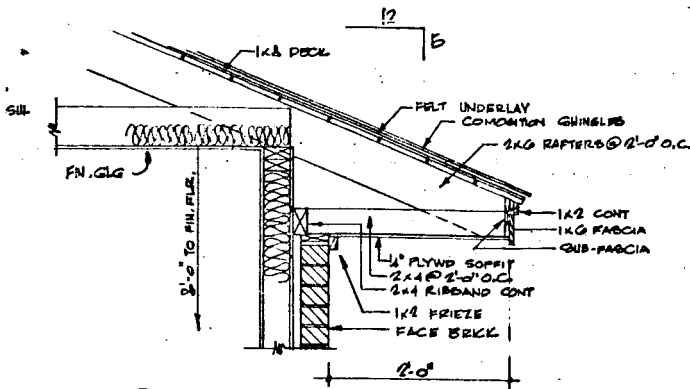
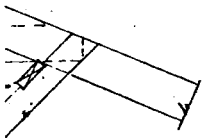
STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 29 of 30
TEST HOUSE NO. 11 (1 of 2)



ADJACENT HOUSE



5 BEAM



3
A1 TYPICAL OVERHANG

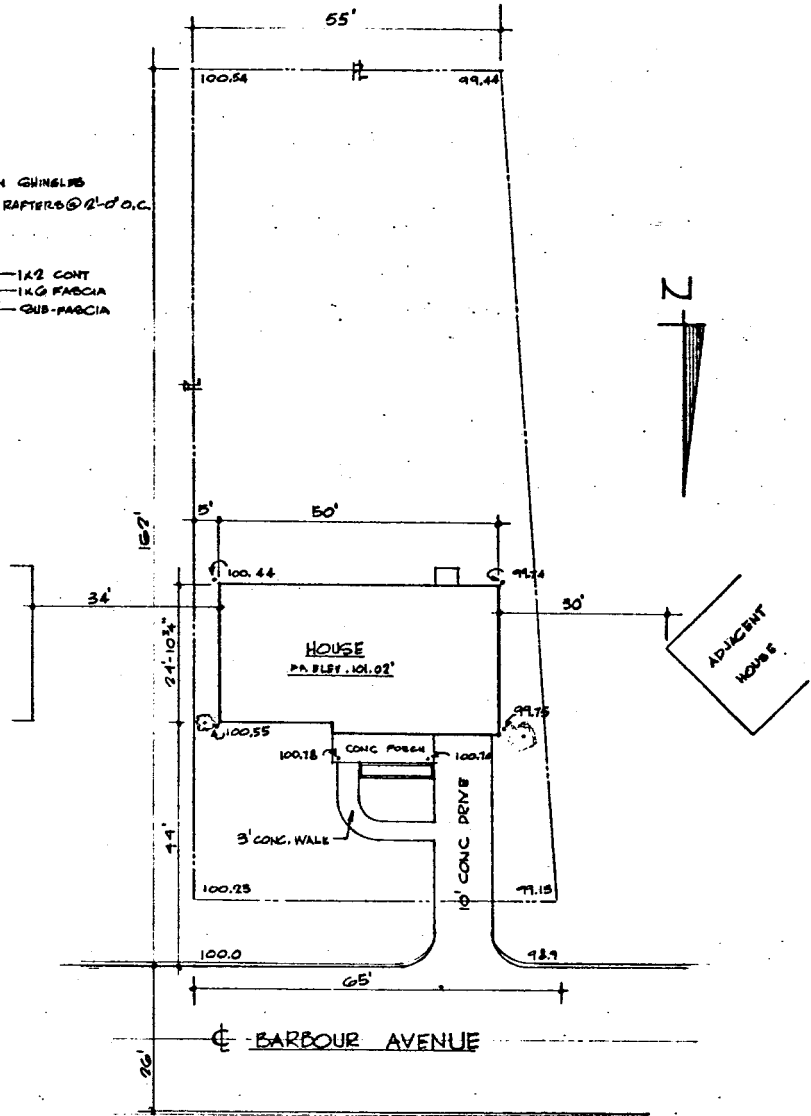
ONT.
 1. CONC. SLAB
 2. 10#10 MESH REINFC.
 3. TERPEXOL MEMBRANE
 4. GRAVEL FILL
 5. SAND FILL

DISTURBED SOIL

10R

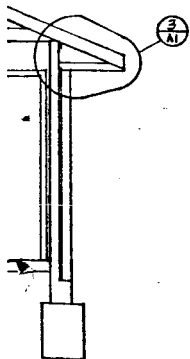
FIBED

ADJACENT
HOUSE



ADJACENT
HOUSE

PLOT PLAN
 SCALE: 1" = 20'-0"



B

TEST HOUSE #11 - 1021 BARBOUR NORMAN, OKLAHOMA

PROJECT NO. 9		S.G.T. PROGRAM TEST STRUCTURE P.O.B.	
		FEDERAL AVIATION AGENCY-OKLAHOMA CITY	
DESIGNED BY B.E.	TRACED BY	Hudgins, Thompson, Bell and Associates, Inc.	
CHECKED BY	DATE	ARCHITECTS - ENGINEERS - PLANNERS 1411 CLARK BLVD. OKLAHOMA CITY, OKLA. 700 MAYO BLDG. TULSA, OKLAHOMA	
		SHEET NO. A1 OF FOUR	

STRUCTURAL RESPONSE TO SONIC BOOMS - APPENDIX A2
AS-BUILT DRAWINGS - SHEET 30 of 30
TEST HOUSE NO. 11 (2 of 2)

DOOR SCHEDULE

	W	H	T	DESC.
1	3'	6"	1 3/4"	H.C. GLASS
2	2'	6"	1 3/4"	H.C. GLASS
3	2'	6"	1 3/4"	H.C. GLASS
4	2'	6"	1 3/4"	H.C. GLASS
5	2'	6"	1 3/4"	H.C. GLASS
6	2'	6"	1 3/4"	H.C. GLASS
7	2'	6"	1 3/4"	H.C. GLASS
8	2'	6"	1 3/4"	H.C. GLASS
9	2'	6"	1 3/4"	H.C. GLASS
10	2'	6"	1 3/4"	H.C. GLASS
11	2'	6"	1 3/4"	H.C. GLASS
12	2'	6"	1 3/4"	H.C. GLASS
13	2'	6"	1 3/4"	H.C. GLASS
14	2'	6"	1 3/4"	H.C. GLASS
15	2'	6"	1 3/4"	H.C. GLASS
16	2'	6"	1 3/4"	H.C. GLASS
17	2'	6"	1 3/4"	H.C. GLASS
18	2'	6"	1 3/4"	H.C. GLASS
19	2'	6"	1 3/4"	H.C. GLASS
20	2'	6"	1 3/4"	H.C. GLASS
21	2'	6"	1 3/4"	H.C. GLASS
22	2'	6"	1 3/4"	H.C. GLASS
23	2'	6"	1 3/4"	H.C. GLASS
24	2'	6"	1 3/4"	H.C. GLASS
25	2'	6"	1 3/4"	H.C. GLASS
26	2'	6"	1 3/4"	H.C. GLASS
27	2'	6"	1 3/4"	H.C. GLASS
28	2'	6"	1 3/4"	H.C. GLASS
29	2'	6"	1 3/4"	H.C. GLASS
30	2'	6"	1 3/4"	H.C. GLASS
31	2'	6"	1 3/4"	H.C. GLASS
32	2'	6"	1 3/4"	H.C. GLASS
33	2'	6"	1 3/4"	H.C. GLASS
34	2'	6"	1 3/4"	H.C. GLASS
35	2'	6"	1 3/4"	H.C. GLASS
36	2'	6"	1 3/4"	H.C. GLASS
37	2'	6"	1 3/4"	H.C. GLASS
38	2'	6"	1 3/4"	H.C. GLASS
39	2'	6"	1 3/4"	H.C. GLASS
40	2'	6"	1 3/4"	H.C. GLASS
41	2'	6"	1 3/4"	H.C. GLASS
42	2'	6"	1 3/4"	H.C. GLASS
43	2'	6"	1 3/4"	H.C. GLASS
44	2'	6"	1 3/4"	H.C. GLASS
45	2'	6"	1 3/4"	H.C. GLASS
46	2'	6"	1 3/4"	H.C. GLASS
47	2'	6"	1 3/4"	H.C. GLASS
48	2'	6"	1 3/4"	H.C. GLASS
49	2'	6"	1 3/4"	H.C. GLASS
50	2'	6"	1 3/4"	H.C. GLASS
51	2'	6"	1 3/4"	H.C. GLASS
52	2'	6"	1 3/4"	H.C. GLASS
53	2'	6"	1 3/4"	H.C. GLASS
54	2'	6"	1 3/4"	H.C. GLASS
55	2'	6"	1 3/4"	H.C. GLASS
56	2'	6"	1 3/4"	H.C. GLASS
57	2'	6"	1 3/4"	H.C. GLASS
58	2'	6"	1 3/4"	H.C. GLASS
59	2'	6"	1 3/4"	H.C. GLASS
60	2'	6"	1 3/4"	H.C. GLASS
61	2'	6"	1 3/4"	H.C. GLASS
62	2'	6"	1 3/4"	H.C. GLASS
63	2'	6"	1 3/4"	H.C. GLASS
64	2'	6"	1 3/4"	H.C. GLASS
65	2'	6"	1 3/4"	H.C. GLASS
66	2'	6"	1 3/4"	H.C. GLASS
67	2'	6"	1 3/4"	H.C. GLASS
68	2'	6"	1 3/4"	H.C. GLASS
69	2'	6"	1 3/4"	H.C. GLASS
70	2'	6"	1 3/4"	H.C. GLASS
71	2'	6"	1 3/4"	H.C. GLASS
72	2'	6"	1 3/4"	H.C. GLASS
73	2'	6"	1 3/4"	H.C. GLASS
74	2'	6"	1 3/4"	H.C. GLASS
75	2'	6"	1 3/4"	H.C. GLASS
76	2'	6"	1 3/4"	H.C. GLASS
77	2'	6"	1 3/4"	H.C. GLASS
78	2'	6"	1 3/4"	H.C. GLASS
79	2'	6"	1 3/4"	H.C. GLASS
80	2'	6"	1 3/4"	H.C. GLASS
81	2'	6"	1 3/4"	H.C. GLASS
82	2'	6"	1 3/4"	H.C. GLASS
83	2'	6"	1 3/4"	H.C. GLASS
84	2'	6"	1 3/4"	H.C. GLASS
85	2'	6"	1 3/4"	H.C. GLASS
86	2'	6"	1 3/4"	H.C. GLASS
87	2'	6"	1 3/4"	H.C. GLASS
88	2'	6"	1 3/4"	H.C. GLASS
89	2'	6"	1 3/4"	H.C. GLASS
90	2'	6"	1 3/4"	H.C. GLASS
91	2'	6"	1 3/4"	H.C. GLASS
92	2'	6"	1 3/4"	H.C. GLASS
93	2'	6"	1 3/4"	H.C. GLASS
94	2'	6"	1 3/4"	H.C. GLASS
95	2'	6"	1 3/4"	H.C. GLASS
96	2'	6"	1 3/4"	H.C. GLASS
97	2'	6"	1 3/4"	H.C. GLASS
98	2'	6"	1 3/4"	H.C. GLASS
99	2'	6"	1 3/4"	H.C. GLASS
100	2'	6"	1 3/4"	H.C. GLASS

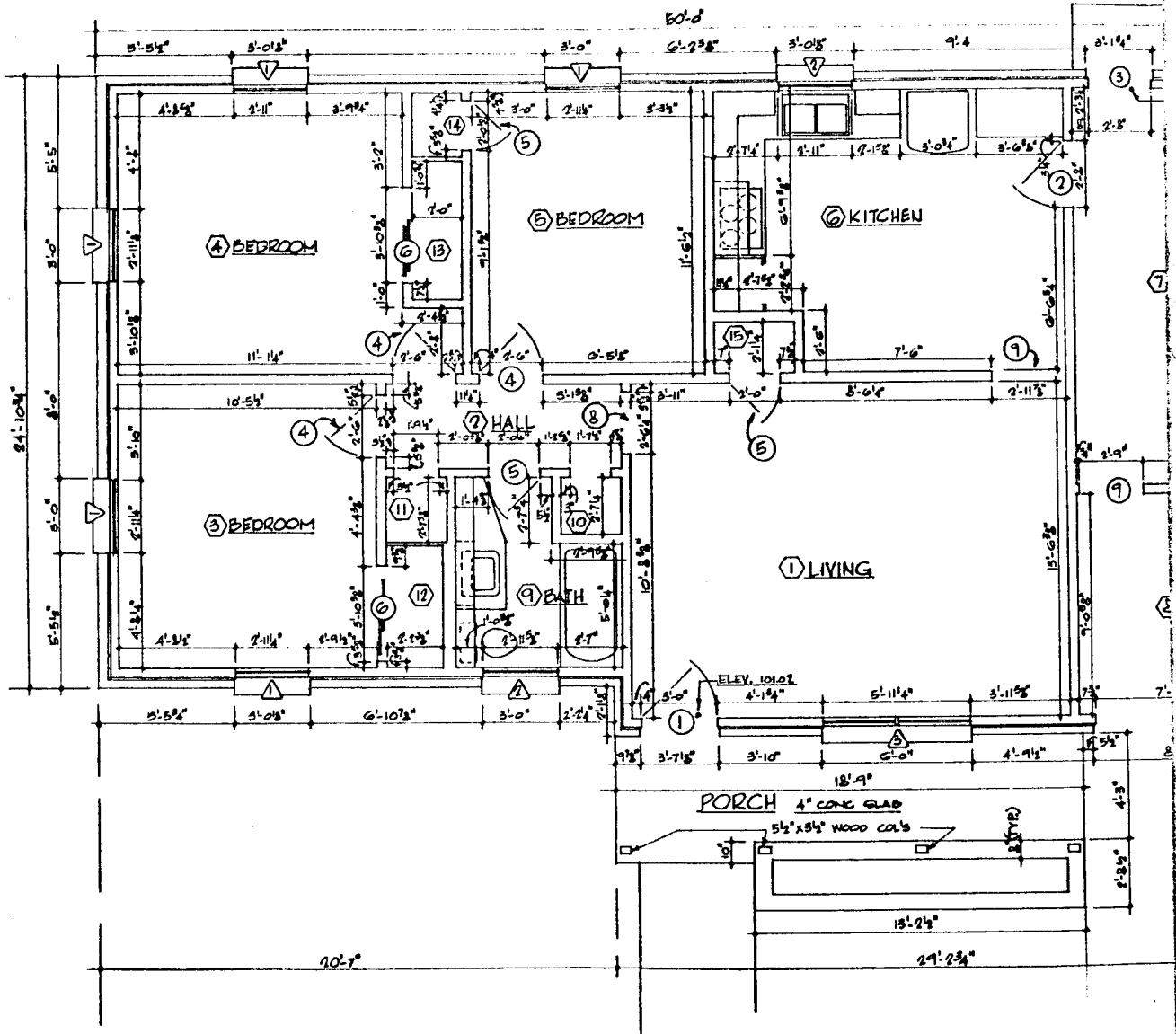
WINDOW SCHEDULE

	W	H	T	DESC.
1	2'-11 1/2"	4'-7 3/8"	1"	G.H. ALUM 2LT/2LT
2	"	2'-10 3/8"	"	" " " "
3	"	4'-2 3/8"	"	" " " "

* 2 UNITS W/1" ALUM. MULLION - TOTAL WIDTH 5'-11 1/2"

NOTE:

ALL WINDOW DIMENSIONS ARE TAKEN FROM HEAD JAMB TO WDW STOOL & SIDE JAMB TO SIDE JAMB. ALL WDWs HAVE HORIZ. MUNTIN BAR



FLOOR PLAN

SCALE: 1/4" = 1'-0"

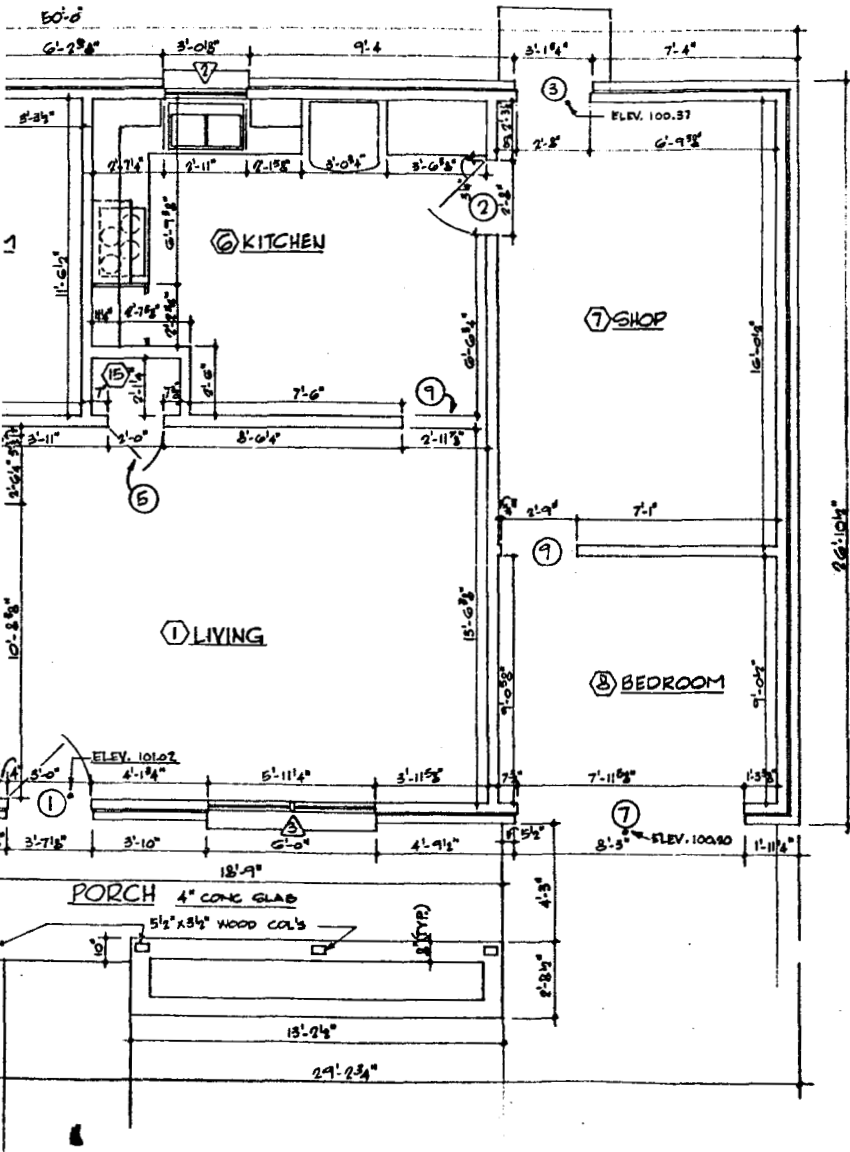
A

WINDOW SCHEDULE

H	T	DESC.
1'-2 3/8"	1"	S.H. ALUM 2LT/2LT
1'-10 3/8"	"	" " " "
1'-2 3/8"	"	" " " "

ALUM. MULLION - TOTAL WIDTH 5'-11 1/2"

WINDOW DIMENSIONS ARE TAKEN
HEAD JAMB TO WPW STOOD
JAMS TO SIDE JAMB, ALL WDWS
100Z, MUNTIN BAR



ROOM FINISH SCHEDULE

AREA NO.	DESIGNATION	FLOOR				WALL		CLG	COMMENTS	
		CARPET	V-TILE	CERTILE	CONC	GYP BD/PT	C.T. WANS.	ENC. STUD		GYP BRFT
1	LIVING	○	○			○			○	
2	HALL	○				○			○	
3	BEDROOM	○				○			○	
4	"	○				○			○	
5	"	○				○			○	
6	KITCHEN		○			○			○	4'-0" C.T. WANS. - 6'-0" WANS. @ TUB
7	SHOP				○	○			○	
8	BEDROOM					○			○	
9	BATH			○			○		○	
10	LIN/STRG					○			○	JOB BUILT CABINET
11	MECH/STRG					○			○	" " "
12	CLOSET	○				○			○	
13	"	○				○			○	
14	"	○				○			○	
15	CONT CLOSET	○				○			○	

PLAN

TEST HOUSE #11 - 1021 BARBOUR NORMAN, OKLAHOMA



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PROJECT NO.	S.S.I. PROGRAM TEST STRUCTURE FOR FEDERAL AVIATION AGENCY-OKLAHOMA CITY
FILE NO.	
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DATE	SHEET NO. A2 OF FOUR

TYPICAL

INITIAL

AND

FINAL INSPECTION REPORT

(Combined for comparison purposes)
January and November, 1964

Test House No. 3
1524 Northeast 34th Street
Oklahoma City, Oklahoma

NOTES

1. Items with the number of the item enclosed with parenthesis were reported on the initial inspection and were found unchanged in the final inspection.
2. Items marked with an * are defects that have changed since the initial inspection. Each item must be read to ascertain whether it is an extension of an existing crack, a repair, etc. Also, portions of the description may be enclosed in parenthesis indicating that the enclosed portion has not changed since the initial inspection.
3. All items not noted as items 1 and 2 above are defects that have appeared since the initial inspection.
4. Total numbers of defects do not necessarily agree with total numbers tabulated or charted as monthly or weekly summaries. These inspections were conducted by different persons under different conditions than the daily and/or thrice weekly inspections which are the basis for the summaries.

AREA 4 - LIVING ROOM:North Wall:

1. 1 loose nail $9\frac{1}{2}$ " below ceiling and 30" east of west wall.
 2. 1 loose nail 16" above floor, $38\frac{1}{2}$ " east of west wall.
 3. 1 loose nail 22" below ceiling, 6'3" east of west wall.
 4. 1 loose nail 22" below ceiling, $8'1\frac{1}{2}$ " east of west wall.
 5. 2 loose nails $11\frac{1}{2}$ " and $22\frac{1}{2}$ " above floor, $8'3\frac{1}{2}$ " east of west wall.
 6. 1 loose nail 49" above floor, 13" west of thermostat.
 7. One vertical crack at west edge of glass screen, open from lower west jamb to floor.
 8. One diagonal crack $\frac{3}{8}$ " long at top west corner of glass screen.
 9. 1 loose nail 14" below ceiling, $17\frac{1}{2}$ " west of east end of wall.
 10. 1 horizontal crack at top of wall along ceiling, 13'3" long, starting $38\frac{1}{2}$ " east of west wall.
 11. 2 loose nails 7'5" east of northwest corner - 12" and 24" above floor.
- (12.) Baseboard loose along entire wall.
- (13.) Intersection of gypboard and wood paneling open at west corner of decorative screen and planter.
- (14.) $\frac{3}{8}$ " long 45° crack at top of west corner of decorative screen.

West Wall:

- (1.) Wood paneling - shrinkage crack $\frac{1}{16}$ " at top.
- (2.) Wood paneling - vertical joints open entire wall above mantel.
- (3.) Horizontal crack at top of mantel and butt joint of wood panels.
- (4.) Horizontal crack at splice between 1 x 8 and 1 x 2 on top of mantel $48\frac{1}{2}$ " long starting $29\frac{1}{2}$ " north of south wall.
- (5.) Same crack as in 4 above at north end of mantel 5- $\frac{1}{8}$ " long starting at north wall.

- (6.) Top and face of mantel ill fitted at north wall. 1/16" open crack.
- (7.) 1 x 8 mantel top split at (2) places on north end where it is nailed.
- (8.) Loose nails protruding out of bottom face of paneling in the 8th and 10th boards from the north wall approximately 1" above mantel. These same boards are split from the nail location to the bottom of the boards.
- (9.) Shrinkage cracks at northwest corner of room from floor to ceiling, where paneling butts gypboard.
- (10.) South end of north bookcase pulled away from fireplace stone. The crack is 25" long starting 3/16" wide at the bottom and stops at top.
- (11.) Four pieces of stone loose at upper right hand corner of ledge stone at fireplace.
- (12.) Loose and missing mortar at top of upper left hand corner of fireplace.
- (13.) Horizontal mortar crack at south end of lintel over fireplace. This crack runs south to the end of the stone work and drops down 2" at end of first stone.
- (14.) Shrinkage crack around ends and bottom of second piece of stone in bottom course from south end of wall.

South Wall:

- (1.) Wood paneled vertical joints opened up in general entire wall - shrinkage cracks - none exceed 1/8" wide.
- (2.) 2" long vertical crack at west head of Window No. 5 in wood panel.
- (3.) 10" long repaired split in face board at head of Window No. 5 at west end.
- (4.) Door No. 2 head casing opened at west miter joint.
- (5.) Slight shrinkage cracks around entire perimeter of Window No. 5.
- (6.) Baseboard loose and open at mitered joints along entire wall.

East Wall:

- (1.) Southeast corner - slight vertical shrinkage crack floor to ceiling.

- *2. Intermittent vertical cracks at panel joint 94-3/4" north of southeast corner have connected and now extend from floor to ceiling.
- *3. Shrinkage crack 8" south of south corridor opening jamb continuous floor to ceiling except 1 area 4 1/2" long located 34 1/2" above finish floor.
- (4.) Shrinkage crack 13-5/8" long from south head of cased corridor opening to ceiling trim.
- (5.) Baseboard loose along entire wall.
- (6.) Heating register bent in south section.

Ceiling:

- 1. 107 loose nails in ceiling. (total)
- 2. One east-west crack, 7 1/2" long, 48" south of north wall and 60" east of west wall.
- 3. One east-west crack, 15" long, 48" south of north wall and 6'9" east of west wall.
- 4. One east-west crack, 4" long, 48" west of east wall and 70" north of south wall.
- 5. One north-south crack, 8" long, 15" west of east wall and 9'3" north of south wall. This crack intersects at south end, one 1'3" long, east-west crack.
- *6. The partially repaired 8-5/8" crack starting at west wall and 70" south of north wall has extended 1-5/8".
- (7.) Water stains and slight cracks in paper in an area 3" wide and 14" long located 14" north of south wall and 17" east of west wall.
- (8.) Intersection of ceiling and north wall - 23-1/2" horizontal crack starting at the west wall has extended 4-3/4".
- *9. The horizontal crack which starts 1-7/8" west of west jamb of the decorative screen and runs 57-1/2" east has extended 1" west.

AREA 1 - NORTH ENTRY AREA:East Wall:

- (1.) Shrinkage cracks around Door No. 12 casings of entry closet.
- (2.) Shrinkage crack 13-7/8" long from south head of Door No. 12 casing to ceiling.
- (3.) One vertical shrinkage crack 8½" long starting at north jamb of Entry Closet No. 12 and one vertical crack 1½" long starting at ceiling trim above north jamb of Door No. 8.
- (4.) Northeast corner - slight shrinkage crack from floor to ceiling, partially bridged with paint.

North Wall:

- (1.) Shrinkage crack 14" long from top of casing of Door No. 1 at west edge of Side Light No. 1 up to ceiling trim.
- (2.) West jamb of north Door No. 1 split top to bottom.

Ceiling:

- (1.) One ceiling crack 3/4" long starting 2" from north wall and 30½" west of east wall.
- (2.) One ceiling crack 3/8" long 14½" west of east wall, 1" south of north wall.
- (3.) Ceiling crack partially repaired 1" long, 47" west of east wall, 11½" south of north wall.
4. 27 loose nails in ceiling. (total)
5. Horizontal crack at intersection of ceiling and west false beam, continuous from north to south end.
6. 6 loose nails east face of false beam.
7. 1 horizontal crack, 1½" long starting at north wall on east face of false beam, 11" below ceiling.

FALSE BEAM BETWEEN ENTRY AREA 1 AND KITCHEN AREA 3:

- (1.) One vertical crack 2" long at bottom of register $4\frac{1}{2}$ " from north end of register.
- (2.) One 45° crack $2\frac{1}{2}$ " long at south bottom corner of register.
- (3.) One vertical crack 1-5/8" long at top south corner of register.
- (4.) One 45° crack 1" long at top north corner of register.
- (5.) One small hole in gypboard at nailhead at south edge of register.

SOFFIT OF FALSE BEAM:

1. 2 loose nails.

PLANTER AT NORTHWEST CORNER OF ENTRYWAY AREA 1:

- (1.) Vertical and horizontal shrinkage cracks where planter abuts north wall.

AREA 3 - DINING:East Wall:

- (1.) Planter - 4" long crack at both sides at bottom of door.
- (2.) Northeast corner - wallpaper wrinkled at 14", 16" and 36" below the ceiling.
- *3. (Soffit of false beam around ductwork at southeast corner - four short erratic cracks from one to three inches long intersecting each other at various angles.) Also 1 diagonal crack $\frac{1}{2}$ " long at the inside corner.
- (4.) Southeast corner of area at stud wall above decorative glass screen - one forked crack 2" long.
- (5.) At head of east casing of decorative glass screen - one vertical crack $2\frac{1}{4}$ " long.
- (6.) Top south corner at east end of Kitchen cabinet - wood broken wedge-shaped from top where nailed 3" long.
7. One vertical crack - 1" long - extending up from north end of false beam.

North Wall:

1. One vertical crack, $2\frac{1}{4}$ " long extending up from west head of Window No. 2.

Ceiling:

1. 19 loose nails. (total)
2. Several small areas of paint blisters located in an area starting at the north wall, 4' long and 1' wide, beginning at the northeast corner.

AREA 2 - KITCHEN:West Wall:

1. One horizontal crack 15" long at ceiling of window recess starting 3" north of cabinets.
- (2.) Wall-hung cabinets generally in good condition.
- (3.) Second door from south end has a 3" vertical crack 4-3/4" from bottom of south edge.
- (4.) One 1/2" long 45° crack at bottom south corner of Window No. 4 sill.
- (5.) One 3" vertical crack at south head of Window No. 4 turning west and running 4" horizontal across window recess.
- *6. Northwest corner at Window No. 3 (furring at head - one 2 1/2" vertical crack -) 1 1/2" crack starting at bottom of sill has extended 2 1/2".
- (7.) Northwest inside corner of furring above cabinets has one horizontal crack starting in corner and running north on soffit 3-3/4".

North Wall:

- (1.) Northwest Window No. 3 head at top corner of east jamb - one 45° crack 2" long turning at corner and running horizontal 3-1/4" to Window No. 3.
- (2.) At bottom east corner of Window No. 3 at sill - one vertical crack 5 1/4" long starting at bottom of sill and located 3/4" east of Window No. 3 jamb.
3. One horizontal crack 14" long at ceiling and window recess, starting above east jamb of Window No. 3.
4. One vertical crack 3 1/2" long located 23" east of west wall at top of Formica planter.

- (5.) North wall-hung cabinets in good condition with tight joints.
- (6.) Wallpaper ill-fitting at end of blacksplash at east end of cabinets. Also, paper ill-fitting leaving open crack $8\frac{1}{2}$ " long at top of wall-hung cabinet.
- (7.) North Window No. 2 - wallpaper ill-fitting at both jambs and top of window, leaving cracks and jagged edges.
- (8.) Shrinkage cracks around entire Window No. 2.

South Wall:

- (1.) Wood molding at head of cabinet pulled away from furring above full length of cabinet.
- (2.) Wall-hung cabinets along south wall have good tight joints well filled with a few minor shrinkage cracks.
- (3.) Slight shrinkage cracks at wood recess for washing machine station.
- (4.) East and west ends of top of built-in cabinet around oven buckled and cracked.
- (5.) Southwest corner - one vertical crack 2" long starting at top of blacksplash and one vertical crack 4" long starting at bottom of cabinet.
- 6. 8 loose nails in immediate vicinity of washing machine location.
- 7. One horizontal crack $\frac{1}{2}$ " long extending from top of east corner of washing machine outlet.
- 8. One horizontal crack extending west from top of electric outlet $\frac{1}{2}$ " then turning 90° and extending up $\frac{1}{2}$ ".
- 9. One vertical crack 1" long starting 2" above floor and 25" east of oven cabinet.
- 10. One vertical crack $\frac{3}{8}$ " long starting at baseboard, $25\frac{1}{2}$ " east of oven cabinet.
- 11. One vertical crack $\frac{1}{2}$ " long starting at baseboard and located 30" east of oven cabinet.

12. One vertical crack $2\frac{1}{2}$ " long starting at baseboard and 38-3/4" east of oven cabinet.
13. One diagonal crack 3/8" long extending down from lower west corner of washing machine plumbing recess.
14. One vertical crack $\frac{1}{2}$ " long extending down from bottom of washing machine plumbing recess and located 22" east of oven cabinet.
15. One vertical crack $4\frac{1}{2}$ " long extending down from bottom of washing machine plumbing recess and 27" east of oven cabinet.
16. One diagonal crack 1" long across east bottom cover of washing machine plumbing recess.
17. One vertical crack 1" long extending up from lower east corner of washing machine plumbing recess.
18. One vertical crack 1" long 42" above floor, 31" east of oven cabinet.

AREA 12 - ENTRYWAY CLOAK CLOSET:

- (1.) Door warped $\frac{1}{4}$ " to the west at top, but will latch.

AREA 5 - HALLWAY:

West Wall:

- (1.) Shrinkage cracks around edge of casing at cased opening.
2. Two loose nails.
3. One vertical crack in southwest corner 1" long starting at baseboard.
4. One vertical crack $1\frac{1}{2}$ " long in southwest corner, starting 11" above floor.
5. One vertical crack 1" long in southwest corner starting $14\frac{1}{2}$ " above floor.
6. One vertical crack 1-3/4" long in southwest corner starting $16\frac{1}{2}$ " above floor.
7. One vertical crack 6" long in southwest corner starting $18\frac{1}{2}$ " above floor.
8. One vertical crack 10" long in southwest corner starting 25" above floor.
9. One horizontal crack starting at south wall extending north 1", $37\frac{1}{2}$ " above floor.

10. One vertical crack 16" long in southwest corner starting 38" above floor.
11. One vertical crack in northwest corner $9\frac{1}{2}$ " long starting 21" above floor.
12. One vertical crack $19\frac{1}{2}$ " long in southwest corner starting $46\frac{1}{2}$ " above floor.
13. One horizontal crack at ceiling 19" long starting $1\frac{1}{4}$ " south of north wall.

South Wall:

1. 14 loose nails.
2. One vertical crack 2" long 1" east of west wall starting at west head of Door No. 9.
3. One vertical crack 1" long 37" east of west wall 14" below ceiling.
4. One vertical crack 2" long $39\frac{1}{2}$ " east of west wall 13" below ceiling.
5. One horizontal crack $\frac{1}{2}$ " long 34" below ceiling $69\frac{1}{2}$ " west of east wall.
6. One horizontal crack $1\frac{1}{2}$ " long $34\frac{1}{2}$ " below ceiling 47" west of east wall.
- (7.) One $\frac{1}{2}$ " long horizontal crack at west head of Door No. 9.
- (8.) Shrinkage cracks around perimeter of Heater Closet Door No. 9 casing.
- *9. 1" 45° crack at west head of Door No. 4 has extended $\frac{1}{2}$ ".
- (10.) Shrinkage cracks at perimeter of casing at Door No. 4 to South Bedroom No. 7.

East Wall:

- (1.) One $2\frac{1}{4}$ " long horizontal crack at south head of Door No. 5 to north Bedroom No. 6.
- (2.) Shrinkage cracks around perimeter of Door No. 5 to north Bedroom No. 6.
3. Three loose nails.
4. One vertical crack 1" long starting at baseboard and 1" north of Door No. 5.
5. One horizontal crack at ceiling 2" long starting at north wall.

North Wall:

1. Linen Closet No. 14 - shrinkage cracks around perimeter of Door No. 11 trim.
2. Shrinkage cracks around Door No. 6 casing to Bathroom No. 8.

(3.) Shrinkage cracks at perimeter of Door No. 7 casing.

- *4. The $1\frac{1}{4}$ " 45° crack at top west corner of Door No. 7 casing has extended 4-3/4" with one horizontal branch 2" long extending west.
- 5. One vertical crack 1" long starting at ceiling and northwest corner, running to top of linen closet.
- 6. One diagonal crack $1\frac{1}{2}$ " long extending up and west from top west corner of Door No. 14.
- 7. One horizontal crack at ceiling 4" long starting at east wall.
- 8. One horizontal crack at ceiling 5" long starting 15" west of east wall.
- 9. One horizontal crack at ceiling 4" long starting $24\frac{1}{2}$ " west of east wall.
- 10. One horizontal crack at ceiling 17" long starting 42" east of west wall.
- 11. One vertical crack starting 1" below ceiling and 21" east of west wall.
This crack extends to ceiling line and extends 1" out, on face of ceiling.
- 12. 2 loose nails.

Ceiling:

- 1. 20 loose nails.

AREA 13 - HOT WATER HEATER ROOM:

West Wall:

- (1.) Gypboard rough cut and torn at gas pipe entry.

Ceiling:

- (1.) Gypboard torn and ragged at present flue location. A prior flue location has been crudely patched.

North Wall:

- (1.) Gypboard torn where hot and cold pipes go into wall.

AREA NO. 8 - BATHROOM:East Wall:

1. 4 loose nails.
2. One vertical crack 1" long in southeast corner starting $24\frac{1}{2}$ " above vanity backsplash.
3. One horizontal crack at ceiling 36" long starting 4" north of south wall.
4. One horizontal crack at ceiling $11\frac{1}{4}$ " long starting 27" south of north wall.
5. One horizontal crack at ceiling $22\frac{1}{2}$ " long starting 1" south of north wall.
6. One vertical crack in northeast corner 19" long starting at top of ceramic tile.
- (7.) Ceramic tile wainscot at back of stool - shrinkage cracks at top back edge of bullnose.
- (8.) North end of vanity backsplash - shrinkage crack at corner and tile grout missing in vertical joints at end.
- (9.) Northeast corner - ceramic tile cracked from toe of cove base at floor to top of bullnose.

North Wall:

- (1.) At east jamb of Window No. 12 there is one 4" long vertical crack 1" east of jamb starting at bottom of sill. There is also one crack at the east head of Window No. 12 jamb 45° , 2" long on wall and running horizontal $3\frac{1}{4}$ " north to Window No. 12 casing.
- (2.) Shrinkage cracks at both ends and back of Window No. 12 sill with very slight shrinkage cracks along east and west ends of Window No. 12 casing.
- (3.) Pointing mortar cracked and/or missing at top and bottom joints of bullnose cap at top of wainscot and turns upward and continues around perimeter of shower and tub enclosure along the rest of the north wall.

- (4.) Settlement and cracking of ceramic tile cove base starting at northeast corner of bathtub and running 12" east.
- (5.) Pointing mortar loose and/or missing around perimeter of tub.
6. One vertical crack $3\frac{1}{2}$ " long starting at top of window stool at east end of Window No. 12 and 20" west of east wall.
7. One vertical crack $5\frac{1}{2}$ " long, 2" below ceiling $25\frac{1}{2}$ " west of east wall.
8. West head of Window No. 12 recess - cracked horizontal from window jamb to inside face of wall, extending above on a 45° angle $2\frac{1}{2}$ ".
9. One horizontal crack at ceiling 2" long starting $23\frac{1}{2}$ " west of east wall.
10. One horizontal crack at ceiling $5\frac{1}{2}$ " long starting 35" west of east wall.
11. One horizontal crack at ceiling $4\frac{1}{2}$ " long starting 34" east of west wall.
12. One vertical crack 8" long extending from top of bullnose cap to window stool, $30\frac{1}{2}$ " west of east wall.

West Wall:

- (1.) Northwest corner - loose and cracked pointing mortar from top of tub to top of bullnose. Also one $3\frac{1}{2}$ " long vertical crack starting at top of bullnose running upward. Pointing mortar cracked and/or missing at top and bottom of bullnose cap entire width of wall.
- (2.) Pointing mortar missing at top of bathtub.
- (3.) Southwest corner - pointing mortar cracked from top of tub to top of bullnose.
- (4.) Vertical joint of bullnose at southeast corner of tub - pointing mortar cracked vertically, horizontally and in some places missing from floor to top of bullnose.
- (5.) Southwest corner near door jamb - pointing mortar missing on vertical joint from floor to top of bullnose cap.
6. 2 loose nails.

7. One vertical crack $17\frac{1}{4}$ " long in northwest corner starting $1\frac{1}{2}$ " below ceiling.
8. One horizontal crack at ceiling $16\frac{1}{4}$ " long starting $7\frac{1}{2}$ " north of south wall.
9. One vertical crack 7" long in southwest corner starting at top of bullnose.
10. Ceramic tile grout broken from finish floor to top of wainscot at intersection of bullnose jamb and west wall (near Door No. 6).

South Wall:

- (1.) Pointing mortar missing at top of tub.
- (2.) Shrinkage cracks along bottom of bullnose cap.
- (3.) Shower head piping loose.
- (4.) Shower curtain rod loose.
- (5.) At transition at corner of low and high tile wainscots - 2" x 2" quirk miter ceramic tile fitting loose.
- (6.) At west head of Door No. 6 - one $2\frac{1}{2}$ " long horizontal crack.
- (7.) Pointing mortar missing at joint between vanity front and ceramic tile wainscot.
- *8. Door No. 6 (warped $\frac{1}{4}$ " to the north at top) Loose damaged knob has been replaced.
9. 4 loose nails.
10. One horizontal crack $2\text{-}3\frac{3}{4}$ " long at top of ceramic tile above tub and 29" east of west wall.

Ceiling:

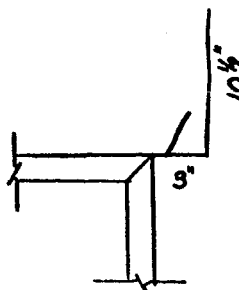
1. 12 loose nails.
2. One east-west crack $4\frac{1}{2}$ " long located $4\frac{1}{2}$ " north of south wall and 4" east of west wall.
3. One horizontal crack extending east 1" from southeast corner of Heater Closet offset wall.

AREA 7 - SOUTH BEDROOM:West Wall:

1. 19 loose nails.
2. One horizontal crack 1" long located $9\frac{1}{2}$ " south of north wall $6\frac{1}{2}$ " above floor.
- (3.) Near north corner - two 2" long cracks at top of heating register.
- (4.) One $\frac{1}{4}$ " long crack at top center of Closet No. 10 light switch.
- (5.) Shrinkage cracks around perimeter of Closet Door No. 10 casing.
- (6.) Closet Door No. 10 difficult to latch.
- (7.) Baseboard loose at south end.

South Wall:

1. 19 loose nails.
2. One horizontal crack at ceiling 28" long starting at west wall.
3. One horizontal crack at ceiling 44" long starting 54" east of west wall.
4. One vertical crack 1" long starting $1\frac{1}{2}$ " below ceiling and $1\frac{1}{2}$ " west of east wall.
5. One vertical crack 5" long in southeast corner starting 10" below ceiling.
6. One horizontal crack $15\frac{1}{2}$ " long under stool of Window No. 6 starting at east wall.
7. One vertical crack $\frac{1}{2}$ " long extending down from Window Stool No. 6 $64\frac{1}{2}$ " west of east wall.
8. One diagonal crack 1" long extending down from Window Stool No. 6 located 70" west of east wall.
9. One vertical crack $3\frac{1}{2}$ " long at west jamb of Window No. 6 starting $\frac{1}{4}$ " above window stool.
10. See sketch - west head of Window No. 6.



11. One vertical crack 1" long starting at baseboard 47" east of west wall.
 12. One vertical crack $4\frac{1}{2}$ " long starting 2" above finish floor in southeast corner.
 13. One vertical crack 8" long starting $16\frac{1}{2}$ " above finish floor in southeast corner.
 14. One vertical crack 4" long starting 26" above finish floor in southeast corner.
 15. One vertical crack $\frac{3}{4}$ " long starting $46\frac{1}{2}$ " above finish floor in southeast corner.
 16. One vertical crack $18\frac{1}{2}$ " long starting $49\frac{1}{2}$ " above finish floor in southeast corner.
 17. Window No. 6 has B.B. hole in west glass.
 - (18.) Baseboard ill fitting - up to $\frac{1}{8}$ " wide gaps at top.
 - (19.) One $1\frac{1}{4}$ " long 45° crack at bottom of sill at west jamb of Window No. 6.
 - (20.) One 6" long horizontal crack under sill starting $1\frac{1}{2}$ " east of west jamb of Window No. 6.
 - *21. At west head of Window No. 6 there are short vertical, horizontal and diagonal cracks emanating from inside corner. These cracks have extended from $4\frac{1}{2}$ " to $10\text{-}\frac{3}{4}$ " up the wall.
 - (22.) Wood stop at west jamb of Window No. 6 broken $12\frac{1}{2}$ " below the top.
 - (23) One horizontal crack 3" long $24\text{-}\frac{3}{8}$ " below head of Window No. 6 at west side.
 - (24.) Shrinkage cracks around perimeter of window stops and at ends and bottoms of sills at Window No. 6.
 - (25.) Southeast corner - one $\frac{3}{4}$ " crack in soffit of Window No. 7 furring at head.
- East Wall:
- (1.) North head of Window No. 7 - one $3\frac{1}{2}$ " long vertical crack turning at corner and running $3\frac{1}{2}$ " horizontal to window stop at the east.

- (2.) North sill of Window No. 7 - one 2" long vertical crack running downward from bottom of sill and one 3" long vertical crack running up from top of sill.
- *3. The 5-3/4" horizontal crack at bottom of sill of Window No. 7 has extended South 3-1/4".
- (4.) One 2" long vertical crack starting at baseboard and 29-3/4" north of southeast corner.
- (5.) Window stops around perimeter of Window No. 7 and end of sills have slight shrinkage cracks.
- (6.) Baseboard ill-fitted along wall, many 1/8" wide gaps and poorly membered at south end.
7. 6 loose nails.
8. One vertical crack in southeast corner 29" long extending from baseboard to Window stool.
9. One horizontal crack 8 1/2" long starting in southeast corner under Window Stool No. 7.
10. One vertical crack 1" long starting at baseboard 58 1/2" north of south wall.
11. One vertical crack 1 1/2" long starting at baseboard 63 1/2" south of north wall.
12. One horizontal crack at ceiling 54 1/2" long starting 20 1/2" north of south wall.

North Wall:

- (1.) New wallpaper recently installed - poorly fitted vertical joints, poorly fitted at ceiling lines and poorly fitted and ragged at door casing.

Ceiling:

1. 72 loose nails.
2. Two short east-west cracks each 1 1/2" long located 2" and 4" east of west wall and 64" and 65" south of north wall.

3. One east-west crack $3\frac{1}{2}$ " long 10" west of east wall 48" south of north wall.
4. One $\frac{3}{4}$ " crack extending northwest from northwest corner of light fixture.
5. One north-south crack 1" long running north from south wall, 57" east of west wall.

AREA 10 - CLOSET:

Rough, unfinished walls and ceiling.

AREA 6 - NORTHEAST BEDROOM:

West Wall:

1. 21 loose nails.
2. One vertical crack 1" long located $14\frac{1}{2}$ " below ceiling and 58" south of north wall.
3. One diagonal crack $1\frac{1}{2}$ " long located 1" below ceiling $49\frac{1}{2}$ " north of south wall.
4. One Y-shaped horizontal crack $1\text{-}3/4$ " long 15" below ceiling extending south from south head of Door No. 5.

South Wall:

1. 28 loose nails. (10 reported on initial inspection)
2. A series of vertical cracks - one $1\frac{1}{2}$ " long, one $4\frac{1}{2}$ " long, and one $1\frac{1}{2}$ " long centered 27" below ceiling and 34" west of west jambs of Window No. 8.
These cracks are along a stud line where nails were omitted and wall board is loose.
3. One diagonal crack $1\text{-}1/8$ " long 1" below ceiling $11\frac{1}{2}$ " west of east wall.
4. One horizontal crack $16\text{-}3/4$ " long starting $10\frac{1}{2}$ " west of east wall at ceiling.
5. One vertical crack 1" long extending above from top of sill at west jamb of Window No. 8.
6. One horizontal crack $\frac{1}{2}$ " long extending west from sill at west jamb of Window No. 8.

- (7.) One horizontal crack 3" long 5-1/4" above baseboard starting 10-1/2" east of west wall.
- (8.) One horizontal crack 3-1/4" long at west head of Window No. 8 turning 45° upward 6".
- (9.) One vertical crack 3-1/2" long starting at top of sill on west Window No. 8 return located 4-1/4" north of window frame.
- (10.) One 45° crack 1-1/8" long at bottom of west end of sills of Window No. 8.
- (11.) Southeast corner - one vertical crack 6" long starting at baseboard.
- (12.) 6-1/2" long shrinkage crack at bottom of sill of Window No. 8 starting at east wall.
- (13.) Shrinkage cracks at entire perimeter of steel sash of Window No. 8.

North Wall:

- (1.) Northwest corner - one vertical crack 8-1/2" long starting 5-1/2" below ceiling - one vertical crack 8" long starting 20-1/2" below ceiling - one vertical crack 21-3/4" long starting at the baseboard and one vertical crack 26-3/8" long starting 36-7/8" above the baseboard.
- (2.) At the west head of Window No. 11 there is one vertical crack 6-1/4" long turning horizontally 3-1/4" to the casing.
- (3.) The 1-3/4" vertical crack starting 1/4" above west end of sill of Window No. 11 has extended 6".
- (4.) Vertically along cripple stud at west jamb of Window No. 11 from baseboard to sill there is one vertical crack 3" long starting at baseboard, one vertical crack 1-1/2" starting 12-3/4" above baseboard, one vertical crack 11-1/2" long starting 17" above the baseboard.
- (5.) There are horizontal shrinkage cracks along the bottom of Window No. 11 entire length of sill.
- (6.) There is one vertical crack 13-1/8" long starting at baseboard in north-east corner.

- (7.) Northeast corner at soffit of Window No. 10 furring - one east-west horizontal crack $3\frac{1}{4}$ " long located $4\frac{1}{2}$ " south of window frame.
- (8.) There is one Y-shaped crack $2\frac{1}{2}$ " long located $4\frac{1}{4}$ " west of east Window No. 10.
- (9.) 31 loose nails. (Two were reported on the initial inspection.)
- (10.) One horizontal crack at ceiling 4" long starting 10" east of west wall.
- (11.) One horizontal crack at ceiling 1" long starting $14\frac{3}{4}$ " east of west wall.
- (12.) One horizontal crack at ceiling $3\frac{1}{2}$ " long starting 21" east of west wall.
- (13.) One vertical crack $8\frac{1}{2}$ " long starting $3\frac{3}{4}$ " below ceiling $70\frac{1}{2}$ " west of east wall.

East Wall:

- (1.) Shrinkage cracks at bottom of sill the entire length of Window No. 10 sill.
- (2.) One $1\frac{1}{4}$ " long horizontal crack starting at bottom of south end of sill of Window No. 10.
- (3.) One $3\frac{1}{8}$ " long horizontal crack at south head of Window No. 10 and extending 45° 2" up on the face of the wall.
- (4.) Shrinkage cracks at sill and jamb of Window No. 9.
- (5.) Window No. 9 - at north head one horizontal crack $3\frac{1}{2}$ " long turning 45° upward $3\frac{1}{2}$ " on the wall.
- (6.) Shrinkage crack under sill of Window No. 9 $16\frac{5}{8}$ " long starting at south wall.
- (7.) One horizontal crack in south soffit of Window No. 9 $2\frac{5}{8}$ " long turning upwards in corner $\frac{3}{8}$ ".
- (8.) Shrinkage cracks at north end of sill of Window No. 9.
- (9.) One horizontal crack $2\frac{3}{4}$ " long $30\frac{1}{8}$ " above sill on north jamb of Window No. 9.
- (10.) Two vertical cracks - one $\frac{3}{4}$ " long and one $1\frac{1}{2}$ " long at bottom of jamb starting at the sill of Window No. 9.

- (11.) One vertical crack 1-1/4" long starting at bottom of sill of Window No. 9
20-1/2" north of south wall.
12. 10 loose nails.
13. One vertical crack 14" long in southeast corner starting 1" below ceiling.
14. One diagonal crack 1-1/8" long starting 1/2" below ceiling 28" north of
south wall.
15. One vertical crack 1" long 30" above floor 71" north of south wall.
16. One vertical crack in northeast corner 15" long starting at ceiling.
17. One vertical crack 4-3/4" long starting at ceiling 19-1/2" south of north
wall.
18. One vertical crack 1-3/4" long starting at ceiling 30" south of north wall,
turning south at ceiling and running horizontal 4".
19. One horizontal crack 2-1/4" long 1" below ceiling 33-1/2" south of north
wall.
20. One horizontal crack at ceiling 6-1/2" long starting 7" north of south wall.
21. One horizontal crack at ceiling 22" long starting 22-1/2" north of south
wall.
22. One horizontal crack 16-1/2" long at ceiling starting 49-1/2" north of
south wall.

Ceiling:

1. 41 loose nails.
2. One east-west crack 3-1/2" long 14" west of east wall 31-1/2" south of north
wall.
3. Three 3/4" diagonal cracks extending from northeast, southeast and south-
west corner of light fixture.

AREA 9 - NORTHEAST BEDROOM CLOSET:

(Sliding Doors No. 12 easily displaced, hanging loose with no guides on bottom.)

EXTERIOR:

1. Mortar cracks at east and west ends of rowlock sill of Window No. 12. The east end extends down 3 courses; at west end, extends down 2 courses.

East Wall Utility Room, Area 16:

- (1.) One split board 8" long at head of Door No. 3 and one split board 10" long at bottom of door.
- (2.) Southwest corner fascia opened up.

Exterior Brickwork:

- (1.) In general used, cracked, broken brick, laid up with rough irregular mortar joints.
- (2.) West soffit at fascia unnailed and hanging down south of chimney.
- (3.) South brick in west Window No. 4 sill loose. Crack runs down 4", south 4" and down 2" from this loose brick.
- (4.) Window No. 4 sill at northwest corner of Kitchen - erratic breaks in cement wash. This entire corner appears to have been repaired for some distance around these Windows Nos. 3 and 4.
- (5.) At bottom east corner of Bathroom Window No. 12 one head joint mortar missing.
- (6.) Window No. 11 sill at Northeast Bedroom window poorly constructed with open joints and broken brick.
- (7.) Window No. 9 sill of Southeast Bedroom window poorly constructed with open joints and broken brick.
- (8.) Window No. 8 sill of southeast window in Southeast Bedroom poorly constructed with open joints, broken and missing brick.
- (9.) Concrete stem wall where visible on south side along Area 15 is broken in several places and marked with green pencil. These breaks are located as follows - one 11" from brick offset, one 28" from brick offset, one 58" from offset, one 138" from offset, one 26'8" from offset (from east offset).

- (10.) South Screen Door No. 2 latch inoperative.
- 11. Mortar separation between first and second brick from north end of sill under Window No. 7.
- 12. A 7" vertical mortar separation at north inside corner between chimney and west wall of house separation starts at top of wall.
- 13. Isolated short mortar separations at random locations.

ELECTRICALFINAL

The only difference in the electrical equipment between initial and final inspections was the right rear burner on the range had been repaired and was working properly. All wiring and wiring devices were checked and found to be operating satisfactorily. Lighting fixture diffusers were checked for cracks and no visible cracks were found.

INITIAL

The electrical system consists of a 3-wire overhead service to a 2" pipe service pole near the southwest corner of the fireplace. A conduit run extends from the service pole through the meter socket to a 2 pole, 3 wire, 60 amp., pull fuse service switch. A 2 pole, 30 amp., safety switch with 15 amp., plug fuse serves the air conditioning compressor located adjacent to the service pole. A 3-wire non-metallic sheathed cable extends from the service switch to a Federal Electric Products Company 100 amp., 120/240 volt distribution panel located in a Kitchen cupboard. The interior wiring is in electric metallic tubing, metal outlet and junction boxes with tubing joists and box connections made up with telescoping fittings; connections to the recessed fixtures are made up with flexible metallic conduit (BX). Certain circuits as noted on the drawing are in non-metallic sheathed cable.

The entire interior wiring system was found to be in fairly good condition, however several junction box covers were missing. The BX connection to the air conditioning compressor near the service pole and the control wiring to the inside unit are not in good condition and may fail during wet weather.

The compressor unit was not started but the inside air conditioning unit fan operated properly as did the gas heating unit and forced air fan in the heater section.

All receptacles and fixtures were checked and found to be working properly. All fixtures were in good condition.

The fixtures in rooms 2 and 3 are 32 watt ring type ceiling mounted fluorescent. Those in rooms 1, 5 and 6 are recessed type with square glass diffusers ceiling mounted. The bathroom bracket has a curved rectangular glass shield center supported by a knurled knob on a metal stud.

The front porch fixture is a ceiling mounted square brass finish frame with rippled glass sides and bottom.

The car port bracket has glass sides and open bottom. The closet, room 10, has a porcelain ceiling mounted lamp holder.

The garbage disposal unit operated properly as far as could be determined.

The oven burners operated properly but the right rear burner on the stove was burned out.

MECHANICALFINAL

Inspection revealed no leaks in piping and no cracks in the plumbing fixtures.

INITIALKITCHEN - AREA #2

Sink - 2 compartment, ledge type, 21 x 32 built-in, with swing spout mixer valve - 8" centers. No cracks, no leaks.

Garbage Disposal - Right hand drain - G.E., in working order.

Dishwasher - Frame only - machine has been removed.

Hot Top (Stove) - 4-burner G.E.

Oven - Electric, G.E., with automatic timer.

Rough-in for automatic washer. No leaks - vented.

WATER HEATER - AREA #13

30-Gallon Fairway (Montgomery Ward), 30,000 BTU, 25.2 Gal. Rec. No leaks. Vent pipe disconnected in attic.

BATHROOM - AREA #8

Lavatory - Built in 18 x 21" with ledge mixer with pop-up waste. No leaks, no cracks.

Stool - U/R - One anchor bolt missing; two anchor caps missing. No leaks, no cracks.

Tub - Unidentified, Overrim - Fill diverter valve to shower grouting bad at ends in front. No cracks or chips; no drip.

HEATING & AIR CONDITIONING

Furnace - Area #11 - Southwest Mfg. Co. Model 802, 80,000 Btu input, thermostatic control. Rust - heavy - from condensation.

Cooling Coil installed above furnace. A separate fan was installed to blow into the coil without affecting the furnace. Return air for the air conditioning fan was drawn through a filter in an opening in the box plenum which the furnace was mounted on. A condensate sump pump was installed in the R.A. plenum to receive the gravity drainage from the cooling coil and pump the condensate to the outdoors.

The Condensate Unit air cooled, Tecumseh 3 HP; twin condenser fan. Unit located in yard at southwest corner of house. Refrigerant lines go up and across attic and down to coil. No insulation.

Duct Insulation was in fair condition on supply, although not up to standard for air conditioning. No insulation on return air piping.

DUCTWORK

A return air plenum for formed by a box stand for the furnace, covering the entire room. The adjoining rooms open directly to this plenum by way of baseboard grilles. Other return air inlets are connected by way of wall stud space - joist boxing in attic and round metal duct from joist box to joist box.

A supply plenum extends from the furnace to a point above the ceiling in the attic. The cooling coil was installed in this plenum, just above the furnace. The distribution piping was round metal pipe, installed from the plenum to the outlet locations.

The above system appears to have been installed as an afterthought with much to be desired in the way of design.

The return air plenum for the air conditioning (by-pass) was constructed of loose panels of sheetrock which had to be removed for service of fan, pump, and A.C. filter.

MONTHLY SUMMARIES OF INSPECTION FINDINGS
ALL TEST HOUSES

(In chronological order: February - October 1964)

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February -- Test Houses No. 1-4	2 & 3
March -- Test Houses No. 1-4	4 & 5
April -- Test Houses No. 1-4	6 & 7
May -- Test Houses No. 1-4	8 & 9
June -- Test Houses No. 1-4	10 & 11
-- Test Houses No. 5-11	12
July -- Test Houses No. 1-4	13 - 15
-- Test Houses No. 5-11	16 & 17
August -- Test Houses No. 1-4	18 - 20
-- Test Houses No. 5-11	21 & 22
September - Test Houses No. 1-4	23 - 25
- Test Houses No. 5-11	26 - 28
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-- Test Houses No. 5-11	32 - 34

SUMMARY OF INSPECTION FINDINGS - FEBRUARY 1964 - PAGE 1 of 2

Date	Test House No. 1		Test House No. 2		Test House No. 3		Test House No. 4		Date
	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	
1									1
2									2
3				START OF	PROGRAM				3
4									4
5									5
6									6
7									7
8									8
9									9
10									10
11									11
12									12
13									13
14							G		14
15									15
16									16
17									17
18									18
19									19
20									20
21									21
22	B	C	B						22
23	B		B	C					23
24			D		F				24
25*					F				25
26									26
27			E						27
28									28
29	**A		**A		**A		**A		29
30									30
31									31
*No test flights this date. **A. Hairline cracks in paint at joints, at wall and ceiling intersections, at door and window openings, etc. exist and continue to extend sporadically at all four test houses. There is no basis to affirm or deny sonic booms as a contributing factor.									

SUMMARY OF INSPECTION FINDINGS - FEBRUARY 1964 - PAGE 2 of 2

Test House No. 1

- B. Door and window glass panels BB shot, scored, and stressed per letter 2/22/64.
- C. Two (2) wall hung 12" mirrors cracked - one in hall, one in SE bedroom. These mirrors have fiberboard backs glued on glass, and cracking occurred during night. May be due to thermal action. Investigation in process.

Test House No. 2

- B. Door and window glass panels BB shot, scored, and stressed per letter 2/22/64.
- C. Wall hung 12" mirror at top of stairs cracked. See Note 2 above.
- D. Grade around outside of house showing settlement.
- E. Grade at S.E. and N.E. corners continuing settlement.

Test House No. 3

- F. BB hole noted in each pane of glass in bottom row of living room window. Source unknown.
- F. BB hole noted in window of south wall, south bedroom. Source unknown.

Test House No. 4

- G. Glass diffuser on ceiling light fixture in bedroom area #4 has 4-1/2" crack. May be due to heat caused by leaving lights on during day.

SUMMARY OF INSPECTION FINDINGS - MARCH 1964 - PAGE 1 of 2

Date	Test House No. 1		Test House No. 2		Test House No. 3		Test House No. 4		Date
	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	
1							T, U		1
2			D						2
3		A	F	E					3
4									4
5					Q				5
6			G						6
7							T		7
*8									*8
9									9
10					R		T, U		10
11									11
12	B								12
13			G						13
14									14
15							T, U		15
16					R		T, U		16
17			H						17
18			I	J	Q, R, S		U		18
*19	B		K		Q, R, S				*19
20					R		U		20
21									21
22							T		22
23				L	R		U		23
24									24
25	C						U		25
26			M		R				26
27			N						27
28			O						28
*29							T, U		*29
30			P				U		30
31									31
* No test flights these dates.									

SUMMARY OF INSPECTION FINDINGS - MARCH 1964 - PAGE 2 of 2

Test House No. 1

- A. Two (2) wall-hung 12" mirrors replaced.
- B. Nail heads appearing under paint coat of various gypsum board ceilings.
- C. No crack extensions around BB holes in window and patio door.

Test House No. 2

- D. General extension of existing interior paint cracks continues.
- E. One (1) wall-hung 12" mirror replaced.
- F. Screws holding metal threshold strip at door from kitchen to garage are coming out and threshold is loose.
- G. Cracks around BB hole in glass pane of main garage door have extended about 1/4". On March 13 cracks around BB hole in kitchen window appeared to have increased slightly (about 1/16").
- H. As of March 17 the paint at every wall junction in this house was cracked, with the following exceptions: (1) NE corner, closet #16; (2) E and W corners above cabinets in kitchen; (3) Interior corners of linen closet #5A.
- I. Simulated plaster paint coating on ceiling of kitchen continues extension of hairline cracks and faint discoloration continues.
- J. Sound on used TV set downstairs is out.
- K. Water 1" to 2" deep standing around front of house. Considerable extension of cracks and nail heads noted.
- L. Sound on TV set downstairs repaired by TV serviceman. Dirty tube socket found in audio circuit.
- M. Extension of hairline ceiling cracks in kitchen continues.
- N. Circuit breakers found "OFF" at start of inspection. Cause unknown.
- O. Pilot light out on furnace. Cause unknown.
- P. Considerable extension of cracks and nail head appearances noted.

Test House No. 3

- Q. Minor extension of existing hairline cracks in kitchen, hallway, and bathroom noted.
- R. Several new nail head appearances noted.
- S. Paint coat on gypsum board ceiling noted to be peeling in kitchen and dining area.

Test House No. 4

- T. New nail head appearances noted.
- U. Extension of various hairline cracks in paint coat noted.

SUMMARY OF INSPECTION FINDINGS - APRIL 1964 - PAGE 1 of 2

Date	Test House No. 1		Test House No. 2		Test House No. 3		Test House No. 4		Date
	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	
1	A		A		A		A		1
2	B		B		B		B		2
3									3
*4				G					*4
5	C					L		O	5
6					M		P, Q		6
7					N				7
8			H						8
9									9
10									10
11									11
12									12
13									13
14									14
15									15
16									16
17								R	17
18									18
19									19
20			I						20
21									21
22					M				22
23	D						S		23
24					M				24
25									25
26	E								26
27									27
28									28
**29			J, K						**29
30	F								30
X									X
* No test flights this date.									
** Special N-S test flights these dates.									

SUMMARY OF INSPECTION FINDINGS - APRIL 1964 - PAGE 2 of 2

General

- A. New nail head appearances through paint coats on gypsum board walls and ceilings of all houses continue sporadically.
- B. Extensions of existing (and appearance of some new) hairline cracks in paint coats on gypsum board walls and ceilings of all houses continue sporadically.

Test House No. 1

- C. Some settlement of grade evident around NE corner area.
- D. F.A.A. carpenter added wood blocking to frame around glass patio door to improve strain gage readings on glass panel.
- E. Small new crack (1½" long) in wall tile above lavatory in bathroom.
- F. One new, small crack on south exterior at seam joint of brick and frame siding below mailbox; another nearby on south exterior just west of window #2.

Test House No. 2

- G. Sound on used TV set downstairs is out again.
- H. Kitchen window (top half, lower pane) broken by ADT installation mechanic.
- I. Hairline crack extension (16" long) in SE corner of tile in upstairs bath.
- J. Slight (1") crack extension from BB hole in kitchen window.
- K. Wood block between turnbuckle and glass of garage door fell out.

Test House No. 3

- L. At 11:30 A.M., used TV set shorted out and tripped circuit breaker.
- M. Paint coat on gypsum board ceiling in kitchen and dining area continues to peel.
- N. ADT installation made.

Test House No. 4

- O. Picture on used TV set is on and off.
- P. Sewer backing up through drain of utility room.
- Q. ADT installation made.
- R. Picture out on used TV set.
- S. Small (1") crack at edge of window #6 in NE bedroom opposite screw-eye in frame. Screw-eye installed by ADT mechanic during ADT installation.

SUMMARY OF INSPECTION FINDINGS - MAY 1964 - PAGE 1 of 2

SUMMARY OF INSPECTION FINDINGS - MAY 1964 - PAGE 1 OF 2									
Test House No. 1			Test House No. 2		Test House No. 3		Test House No. 4		
Date	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Date
1	A		A		A		A		1
2	B		B		B		B		2
3									3
4									4
5	C _a								5
6		D							6
7	E								7
8			H, I		Q				8
9			J						9
10									10
11			K				U _a		11
12	C _b							V	12
*13			L						*13
14			M	N					14
15							U _b		15
16									16
17									17
18	F					R			18
19	G						W		19
20									20
21									21
22									22
23									23
24									24
25									25
26				O	S				26
27									27
28					T				28
29			P						29
30									30
31									31
* No test flights this date.									

SUMMARY OF INSPECTION FINDINGS - MAY 1964 - PAGE 2 of 2

General

- A. New nail head appearances through paint coats on gypsum board walls and ceilings of all houses continue sporadically.
- B. Extensions of existing (and appearance of some new) hairline cracks in paint coats on gypsum board walls and ceilings of all houses continue sporadically.

Test House No. 1

- C_a. Lower left hand pane of east window (window #5) of northeast bedroom broken from inside between 11:45 A.M. and 12:05 P.M. (lunch period).
- D. Vertical hold on new TV set picture (@ Channel 5) lost at time of boom from test flight #7. Simple adjustment of vertical hold control restored normal picture.
- E. Cracks around BB hole in west window of living room extending slightly.
- C_b. Broken pane of window #5 replaced.
- F. Pilot light on gas furnace out. Cause unknown.
- G. Front screen slammed at 1400 hours and part of the east side of front door frame came loose. Appeared to have been previously forced open and nailed back.

Test House No. 2

- H. Owner of house installed screen on window of downstairs bath. Other screens to be installed later.
- I. Crack from BB hole in kitchen window extended 1/2".
- J. Crack from BB hole in kitchen window extended 1/8".
- K. Garage flooded from rain storm of preceding night.
- L. Vertical crack from burglar alarm at N wall E of the NW corner of the house extended 1" into brick above it. Several bricks on SW corner showing cracks from settling.
- M. Turned on "summer switch" of central heating system. Fan runs continuously.
- N. Sound on used TV set downstairs continues to be faulty.
- O. Plastic trim on shadowbox mirror in living room is "checking".
- P. General light rain this date. Water standing along front of house.

Test House No. 3

- Q. Paint peeling (previously reported) continuing in three areas of living room ceiling.
- R. Used TV set returned from repair shop. See April 5 report.
- S. Paint peeling (previously reported) continuing in three areas of dining area ceiling.
- T. Paint peeling (previously reported) continuing on ceiling of kitchen.

Test House No. 4

- U_a. Upper pane of storm window on north window of kitchen found broken this A.M. Cause attributed to severe rain and wind storm in area during previous night.
- V. Used TV set repaired by service man. See April 5 and 17 report.
- U_b. Broken glass of storm window replaced this date.
- W. Handle of soap dish above bathtub broken accidentally. (By people, not booms.)

SUMMARY OF INSPECTION FINDINGS - JUNE 1964 - PAGE 1 of 2

Date	Test House No. 1		Test House No. 2		Test House No. 3		Test House No. 4		Date
	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	
1	A,B,C		A,B,J _a		A,B		A,B		1
2								T	2
3				K					3
4									4
5				L,M				U	5
6									6
7					R				7
8			J _b	N		S			8
9			J _c						9
10									10
11									11
12	E	D							12
13									13
14									14
15								V	15
16	F		J _d						16
17									17
18			O						18
19							W		19
20									20
21									21
22			P						22
23									23
24	G								24
25									25
26			Q						26
27	H						X		27
28									28
29									29
30	I								30
X									X

SUMMARY OF INSPECTION FINDINGS - JUNE 1964 - PAGE 2 of 2

General

- A. New nail head appearances through paint coats on the gypsum board walls and ceilings of all houses continue sporadically.
- B. Extensions of existing (and appearance of some new) hairline cracks in paint coats on gypsum board walls and ceilings of all houses appear sporadically.

Test House No. 1

- C. Crack in west side of wood framing of built-in oven.
- D. China hutch doors opened for 1320 flight. Some movement in crystal stems appears to be a function of the degree of flatness of the base.
- E. House and yard sprayed with chlorodane insect killer.
- F. Exterior - Masonry crack on east side at southeast corner. Crack starts on level with brick window ledge and extends down 3".
- G. Exterior - Crack at intersection of wood with top brick trim extended at corner of front entrance.
- H. Exterior - Outside top framing of patio door developed cracks along east side and center.
- I. Personnel removed cables from attic. Considerable increase noted in new nail head appearances on ceilings.

Test House No. 2

- J_a. 2" tile grout crack extension - NE corner of bath No. 5.
- J_b. 1/4" tile grout crack extension - NE corner of bath No. 5.
- J_c. 2" tile grout crack extension - NE corner of bath No. 5.
- J_d. Tile grout crack extension - NE corner of bath No. 5 24" up from previous bottom mark and 5" down from previous upper mark.
- K. TV in operation for approximately 35 minutes with continuous static.
- L. New audio output tube installed in TV insuring proper operation.
- M. TV in upstairs has defective picture tube. No repairs made.
- N. Mirror at top of stairs replaced with new one. Cracked mirror to be delivered to PPG.
- O. Two shingles on south slope of roof appear to be damaged by wind.
- P. Point Magoo people to be in and out of house for next several days.
- Q. Plywood molding strip below kitchen range is off.

Test House No. 3

- R. Paint peeling on kitchen ceiling near west furring.
- S. TV fails to produce sound. Picture operates okay.

Test House No. 4

- T. TV became inoperative at 1330 hours.
- U. TV repaired.
- V. TV picture functions sporadically. Sound is okay.
- W. Upper glass of front entrance storm door broken due to wind slamming door at 1306 hours.
- X. General Adjustment Bureau representative inspected roof for damage from previous wind and rain storms.

SUMMARY OF INSPECTION FINDINGS (B) - JUNE 1964 - PAGE 1 of 1 -

Test House No. 5*			Test House No. 6	Test House No. 7	Test House No. 8	Test House No. 9	Test House No. 10	Test House No. 11	
Date	Struct.	Furn.	(N.W. 19th St.)		(Park Pl.)		(Norman)	(Norman)	Date
					Occupied	Residences			
1									1
2									2
3									3
4									4
5									5
6									6
7									7
8									8
9									9
10									10
11									11
12									12
13									13
14									14
15									15
16									16
17									17
18									18
19									19
20									20
21									21
22							† A, B	† A, B	22
23							† A, B	† A, B	23
24			† A	† A	† A	† A			24
25			† A	† A	† A	† A			25
26			† A	† A	† A	† A	† A, B	† A, B	26
27									27
28									28
29			† A	† A	† A		† A, B	† A, B	29
30			† A	† A	† A	† A			30
* Test House No. 5 not inspected during June.							† = Day inspected.		
Inspection Notes:			A. No changes noted.						
			B. No boom heard.						

SUMMARY OF INSPECTION FINDINGS (A) - JULY 1964 - PAGE 1 OF 3

Test House No. 1			Test House No. 2		Test House No. 3		Test House No. 4		
Date	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Date
1	A,B		A,B,A2		A,B,A3		A,B		1
2							A4		2
3	A1 _a		B2						3
4									4
5	B1 _a								5
6	B1 _b			C2					6
7	C1								7
8			D2						8
9	D1				B3				9
10			E2		C3		B4,C4		10
11	E1			F2					11
12				G2					12
13					D3				13
14			H2						14
15									15
16							D4,E4		16
17							F4		17
18									18
19					E3				19
20					F3				20
21	F1,G1								21
22			I2						22
23	A1 _b								23
24									24
25					G3				25
26									26
27	J1	I1			H3				27
28									28
29			J2		I3				29
30			(LAST DAY OF SONIC BOOMS)						30
31		K1			J3,K3				31

SUMMARY OF INSPECTION FINDINGS (A) - JULY 1964 - PAGE 2 OF 3

General

- A. New nail head appearances through paint coats on the gypsum board walls and ceilings of all houses continue sporadically.
- B. Extension of existing (and appearance of some new) hairline cracks in paint coats on gypsum board walls and ceilings of all houses appear sporadically.

Test House No. 1

- A1a. A 2" vertical crack has appeared in the northeast corner of the bathroom between the tile and bathtub.
- A1b. A 1/2" crack extension in the tile grout of the northeast corner of the bathroom.
- B1a. Pilot light on hot water heater went out yesterday and today.
- B1b. F.A.A. men cleaned water heater pilot light today. Operation now normal.
- C1. Crack has appeared in grout of west end of window No. 7.
- D1. Furnace pilot light out.
- E1. Picture in room No. 9 found broken on floor. It is believed that the tape holding the picture came loose during the night and the picture fell. Tape holding instrument cables to walls also coming loose.
- F1. Ext. - Expansion of vertical mortar crack in lower east corner of sill of window No. 8.
- G1. A 1/16" extension of BB hole crack in window No. 9.
- H1. Crack in grout of east mount of towel bar.
- I1. TV antenna broken during previous night.
- J1. Exterior extension of mortar crack at upper left corner of window No. 6 of bedroom No. 6. This item is adjacent to a defect noted on the original inspection.
- K1. Broken rung on TV stand. The rung was probably stepped on.

Test House No. 2

- A2. Water dripping from tank overflow of water closet.
- B2. Exterior - A 2" vertical mortar crack at south end of sill on window No. 3.
- C2. Refrigerator and TV in upstairs moved to Test House No. 5.
- D2. Exterior - A 2" mortar crack at the north end of the sill of window No. 3.
- E2. General Note: There are four (4) windows upstairs. There are hairline wall cracks at 11 of the 16 corners.
- F2. The wall hung picture on the east wall just north of the southeast corner of bedroom No. 3 was found on floor. It is believed that the tape mounted hanger came loose.
- G2. The picture on the west wall of room No. 3 has fallen to the floor due to tape failure.
- H2. Exterior - Caulking is dehydrating rapidly. Numerous checks and seal separations apparent.
- I2. Bathroom No. 17 tile grout chipping.
- J2. Exterior - Mortar separation in middle of sill of window No. 11.

SUMMARY OF INSPECTION FINDINGS (A) - JULY 1964 - PAGE 3 OF 3

Test House No. 3

- A3. Plaster is falling off around a nail head found on the original house inspection on the south wall of bedroom No. 6.
- B3. Air conditioning unit quit 8 July. It was put back in operation on 9 July, but quit again at approximately 1200 hours on 9 July.
- C3. F.A.A. men repaired air conditioner. Operation is now normal.
- D3. F.A.A. men worked on air conditioner.
- E3. Condensation from the air conditioning unit has soaked the rug in the area of the air conditioning unit in the hall and in bedroom No. 7.
- F3. F.A.A. men repaired air conditioner at approximately 1100 hours.
- G3. One fan motor on air conditioning unit burned out.
- H3. F.A.A. men repaired air conditioner between 0930 and 1130 hours.
- I3. Operator had to break night latch chain on back door in order to enter house this A.M. Front door cannot be unlocked from outside.
- J3. Horizontal crack along top of tile where wall and tile meet in room No. 8.
- K3. Window trim on west side of window No. 6 has new crack 1/2" long.

Test House No. 4

- A4. Storm door glass replaced in south (front) door. See June 19 report.
- B4. Exterior - Mortar crack starts under north jamb of window No. 4 and extends down three courses of brick.
- C4. Exterior - Foundation cracks start at brick sill 5" and 13" north of north jamb of window No. 9 and extend down.
- D4. Exterior - Foundation crack starts at brick sill 7'8" south of north-west corner and extends down 0'11".
- E4. Exterior - Foundation crack starts at brick sill 9'3" south of north-west corner and extends down 0'6".
- F4. Glass removed from storm doors and replaced with screens.

SUMMARY OF INSPECTION FINDINGS (B) - JULY 1964 - PAGE 1 of 2

Test House No. 5*		Test House No. 6	Test House No. 7	Test House No. 8	Test House No. 9	Test House No. 10	Test House No. 11	
		(N.W. 19th St.)			(Park Pl.)	(Norman)	(Norman)	
Date	Struct.	Furn.	Occupied Residences					Date
1					†	† P	† P	1
2			†	†	†			2
3						† P	† P	3
4								4
5								5
6								6
7			†	†	†	† P	† P	7
8					†	† M		8
9			† G, H	† I	†	† P	† P	9
10	A, B		†	†		† N	† Q	10
11	B							11
12	A, B							12
13	A, B, D							13
14	B, E		† H	† J, K	† A	† P	† T	14
15	B		†	†	†	† O	† P	15
16	B		† C	† C	† C	† A, C	† C, P	16
17	A					†		17
18	B							18
19	A, B							19
20					†	† B	† P	20
21	A, B		† A	† A	† L	†		21
22	A, B		†	†		† A	† P	22
23	A		†	† A	† A	†		23
24	B					† R	† P	24
25	A, B							25
26	A, B							26
27					† A	†	† P	27
28	B		† A	†		†		28
29	A, B		† A	†			† P	29
30	A, B		†	†	†	† A (LAST DAY OF SONIC BOOMS)		30
31	A, F					†	†	31
* Test House No. 5 inspected daily starting July 6.								
† Days when house was inspected.								

SUMMARY OF INSPECTION FINDINGS (B) - JULY 1964 - PAGE 2 of 2 ✓

General

- A. New wall cracks have appeared.
- B. Extension of existing wall cracks have appeared.
- C. Photos of selected house interiors by F.A.A. photographer.

Test House No. 5

- D. Window in bedroom No. 12 cracked in lower right corner.*
- E. South window in dining room has two cracks in the top pane. It is believed that these cracks occurred between 7 July 1964 and 9 July 1964.**
- F. Intermittent circuit in one light of chandelier in parlor.

Test House No. 6

- G. Check points set through house show no movement.
- H. Crack in south portion of living room ceiling appears to have widened.

Test House No. 7

- I. Wallpaper loosening along cracks and bulging from wall in bath and kitchen.
- J. A water evaporative cooler runs part of the day. It is believed that this has some action on the wallpaper near cracks.
- K. Paper loosening from wall over tub in bath.

Test House No. 8

- L. The 9:00 A.M. boom was clear and distinct with window rattle.

Test House No. 9

- M. The 1:00 boom caused heavy window rattle and vibration which was felt in bedroom No. 11.
- N. The 11:00 and 11:20 booms were sharp and distinct in bedroom No. 11. The vibration from the boom appears to cause movement in the cracks and minute particles of plaster to break off at the edge of the crack.
- O. Bedrooms 10 and 11 appear to be the only part of the house where any boom effect can be noted. During the 11:20 boom vibration was felt and minute pieces of plaster appeared to be breaking away at the cracks.

Test House No. 10

- P. No boom heard.
- Q. Cracks around 220 volt receptacle in dining room caused by workmen installing receptacle for air conditioner.
- R. New cracks noted in dining room. The cracks were probably caused by change in temperature due to installation of new air conditioner.

Test House No. 11

- S_a. Occupants have not heard any booms.
- S_b. Occupants have not heard any booms past week.
- T. The 9:00 boom was a very low rumble like distant thunder.

*Inspection error. Crack present at initial inspection.

**Pane removed and submitted to Pittsburgh Plate Glass Company laboratory for analysis. Cracks due to causes other than shock loading.

SUMMARY OF INSPECTION FINDINGS (A) - AUGUST 1964 - PAGE 1 OF 3

Date	Test House No. 1		Test House No. 2		Test House No. 3		Test House No. 4		Date
	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	
1	† A, B		† A, B		† A, B, A3		† A, B		1
2	†		†		† B3		† A4		2
3	† A1		† A2		†		†		3
4	† B1		†	B2	†		†		4
5					†		† B4, C4, D4		5
6	†		† C2						6
7									7
8									8
9									9
10							† F4, G4, H4 † I4, J4	E4	10
11									11
12	† C1		† D2	E2	† C3, A3		†		12
13	†		†		†		†		13
14	†		†		† D3				14
15									15
16									16
17	†		†		†		†		17
18									18
19	† D1		†		†		†		19
20									20
21	†		†		† A3		†		21
22									22
23									23
24	†		†		† E3, A3		† K4		24
25					† A3		† M4, N4, O4	L4	25
26	† E1, F1		†		† A3		† P4		26
27									27
28	† F1	G1	† F2						28
29									29
30									30
31	†	H1			† A3		†		31
	† Days when house was inspected.								

SUMMARY OF INSPECTION FINDINGS (A) - AUGUST 1964 - PAGE 2 OF 3

General

- A. New nail head appearances through paint coats on the gypsum board walls and ceilings of all houses continue sporadically.
- B. Extensions of existing (and appearance of some new) hairline cracks in paint coats on gypsum board walls and ceilings of all houses appear sporadically.

Test House No. 1

- A1. Exterior - Mortar separation of brick sill 18" East of West edge of South window in bedroom No. 9.
- B1. Hole in West wall of living room with concentric crack South of it created accidentally by F.A.A. personnel.
- C1. Exterior - Mortar separation over West support of decorative ledge under garage window.
- D1. Tile grout crack at South edge of mirror in bathroom.
- E1. Mortar crack in first course of bricks above patio slab West of patio door.
- F1. Water ran into garage from joint between house slab and garage slab.
- G1. Two sample mirrors were scratched and hung on West wall of living room and West wall of bedroom No. 9.
- H1. Refrigerator will not run for more than 10 seconds.

Test House No. 2

- A2. Horizontal taped seams of junction of dormer ceiling with wall and ceiling are occurring at innumerable and random locations.
- B2. Picture found on floor of bedroom No. 3. Tape mounted hanger failed.
- C2. Observation: A total of five(5) new nailhead cracks have been noted in the past week.
- D2. Buzzer on oven timer was going when inspector entered house.
- E2. Continuous moderate background static on radio.
- F2. Exterior - Mortar separation between first and second bricks from East end of living room window sill.

Test House No. 3

- A3. Air conditioning unit leaking water on rug in hall.
- B3. Air conditioning unit turned off at 0820 hours.
- C3. Inside screen on kitchen window removed.
- D3. Air conditioning unit repaired by F.A.A. Unit now in operation.
- E3. Exterior - Mortar separation on both sides of second brick West of East side of brick sill on window No. 11 in bedroom No. 6.

Test House No. 4

- A4. A 6" crack at intersection of tile and wall over sink in bathroom.
- B4. Paint checking in bathroom.
- C4. Exterior - Nine vertical mortar separations between bricks on sill for bathroom window.
- D4. Exterior - Vertical mortar separation in middle of sill of living room window.
- E4. T.V. picture fades intermittently during warmup. Operation okay after five to ten minutes.
- F4. Crack in upper left corner of lower pane in lower sash of bathroom window.
- G4. Vertical crack in concrete above foundation vent and beneath windows of bedroom No. 6 and kitchen (exterior).
- H4. Exterior - Four vertical mortar separations in sill of kitchen window.
- I4. Exterior - Horizontal mortar separation beneath East edge of kitchen window.

SUMMARY OF INSPECTION FINDINGS (A) - AUGUST 1964 - PAGE 3 OF 3

Test House No. 4 (Continued)

- J4. Exterior - Numerous hairline cracks in patched areas of foundation along West wall.
- K4. Exterior - Glazing on garage window is dried and falling off.
- L4. Static on T.V. sound during warmup. Distinct changes in volume after warmup.
- M4. Mortar crack beneath sill of bathroom window extended down through one brick (Exterior).
- N4. Exterior - Mortar crack beneath North side of East window in bedroom No. 4 extended down through three more brick courses.
- O4. Exterior - Mortar crack 38" above stemwall 12" West of garage door.
- P4. Exterior - Loose mortar on bottom tread of back steps from masonry crack reported on original inspection.

SUMMARY OF INSPECTION FINDINGS (E) - AUGUST 1964 - PAGE 1 OF 2

Test House No. 5			Test House No. 6	Test House No. 7	Test House No. 8	Test House No. 9	Test House No. 10	Test House No. 11	
			(N.W. 19th St.)			(Park Pl.)	(Norman)	(Norman)	
Date	Struct.	Furn.	Occupied Residences						Date
1	† B								1
2	†								2
3	† B			†		† A	†	† O	3
4	† A,B,C		†	†		† A			4
5	† D,E,F		†	†			†	†	5
6			†		†	†			6
7					†			†	7
8									8
9							†		9
10					† A		†	†	10
11			† A	†		† A			11
12	† G,H,I,J							† P	12
13	†		† A	†	† A	† N			13
14	† B					†	† A	†	14
15									15
16									16
17	† A,B				†	†	† A	†	17
18			†	†	†	†			18
19	† A,B		†	†			†	†	19
20			†	†					20
21	† A,B					†	†	†	21
22					†				22
23									23
24	† A,B				†	†	†	†	24
25			†	†	†	†			25
26	† B, K		†	†			†	†	26
27	† B, L		†	†		†			27
28							†	†	28
29					† A				29
30									30
31	† A,B,M								31
	†	Days when house was inspected.							

SUMMARY OF INSPECTION FINDINGS (B) - AUGUST 1964 - PAGE 2 OF 2

General

- A. New wall cracks have appeared.
- B. Extension of existing wall cracks have appeared.

Test House No. 5

- C. Wallpaper split horizontally on South wall of closet 14B to join Southeast corner.
- D. Plaster chips and dust found beneath ceiling cracks in living room.
- E. Checking in patched area to the right of stairs in foyer.
- F. Window latch on North window of group on West wall in dining room broke.
- G. Paint and plaster peeling off in Northeast corner of dining room.
- H. Faint smell of gas in bedroom No. 12.
- I. Disintegration of plaster in spalled area in bath No. 5 and bath No. 13.
- J. Window shade broken during inspection in closet 15A.
- K. Wallpaper hanging loose on South wall of closet 16A.
- L. Small particles of paint found on floor under crazed area on ceiling in bedroom No. 15.
- M. Paint peeling off North wall in dining room.

Test House No. 6 - No other changes noted.

Test House No. 7 - No changes noted.

Test House No. 8 - No other changes noted.

Test House No. 9

- N. Wallpaper badly wrinkled in Northwest corner of foyer.

Test House No. 10 - No other changes noted.

Test House No. 11

- O. Water from washer stained rug in living room when hose broke.
- P. Window installed in West wall of shop.

SUMMARY OF INSPECTION FINDINGS (A) - SEPTEMBER 1964 - PAGE 1 of 3

Test House No. 1		Test House No. 2		Test House No. 3		Test House No. 4			
Date	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Date
1	†A,B,A1		†A,B,A2		†A,B,A3, †B3,C3		†A,B,B4	A4	1
2									2
3	†		†		† C3		†		3
4									4
5									5
6									6
7	†B1		†		†				7
8	†		†		†	D3	†		8
9	†D1,E1,F1		†C2	B2	†		†C4	D4	9
10							†E4,F4		10
11									11
12									12
13									13
14	†		†		†		†		14
15	†B1	G1	†D2	E2	†	E3	†	G4	15
16	†		†		†		†		16
17									17
18									18
19									19
20									20
21	†		†		†F3		†		21
22	†B1,H1	I1	†		†		†		22
23									23
24	†	J1	†G2	F2	†G3		†H4	I4	24
25									25
26									26
27									27
28	†L1	K1,M1	†	H2	†		†K4,L4	J4	28
29									29
30	†	N1,O1	I2,J2				†M4,N4		30
×									×
	† Days when house was inspected.								

SUMMARY OF INSPECTION FINDINGS (A) - SEPTEMBER 1964 - PAGE 2 of 3

General

- A. New nail head appearances through paint coats on gypsum board walls and ceilings of all houses continue sporadically.
- B. Extensions of existing (and appearance of some new) hairline cracks in paint coats on gypsum board walls and ceilings of all houses appear sporadically.

Test House No. 1

- A1. Exterior - A 4" horizontal extension of diagonal crack under east edge of window sill of bedroom No. 2.
- B1. Water and sand continue to seep on garage floor from beneath house slab.
- C1. Exterior - Mortar crack underneath west end of garage window sill.
- D1. Exterior - Horizontal mortar crack has extended the length of one brick beneath sill of east window of bedroom No. 9.
- E1. Exterior - Horizontal mortar separation under top brick at upper right hand corner of garage door.
- F1. Mortar separation at east support for decorative shelf beneath garage window.
- G1. TV inspected by TV repairman.*
- H1. Circuit breaker switch No. 7 on "off" position when house was entered this A.M.
- I1. Electric clock in kitchen stopped.
- J1. All wall hung lamps, mirrors, and pictures; and all glassware placed on tables in living room. (See note on Page 25.)
- K1. All furnishings that were placed in living room have been placed in their original or a similar place.
- L1. Bathroom sink full of water.
- M1. One hanger clip of wall hung double picture in living room has come loose.
- N1. Double picture removed from wall in living room.
- O1. Hanger failed on wall hung picture in bedroom No. 2.

Test House No. 2

- A2. Exterior - Average grass height approximately 3'0".
- B2. A.D.T. burglar alarm system removed.
- C2. Paint flaked off from previously reported horizontal crack - possibly caused by A.D.T. personnel removing equipment.
- D2. Plastic electric outlet cover plate warped from heat of stove in kitchen.
- E2. T.V. repairman inspected T.V.*
- F2. All wall hung lamps, mirrors, and pictures; and all glassware placed on living room floor along west wall. (See note on Page 25.)
- G2. Exterior - Grass has been cut.
- H2. All furnishings that were placed in living room have been placed in positions similar to their original.
- I2. Exterior - Caulk around windows is dry and cracking.
- J2. Exterior - Numerous checks in exterior siding.

Test House No. 3

- A3. Air conditioning unit turned off at 2:10 P.M. today.
- B3. Vertical tile grout crack at south edge of bathtub.
- C3. Carpet saturated with water from air conditioning unit condensation.
- D3. A.D.T. burglar alarm system removed.
- E3. T.V. inspected by T.V. repairman.*
- F3. Vertical tile grout crack approximately 16" long west of door of bathroom.
- G3. Exterior - Vertical mortar separation under south end of sill beneath kitchen window on west wall.

SUMMARY OF INSPECTION FINDINGS (A) - SEPTEMBER 1964 - PAGE 3 of 3

Test House No. 4

- A4. Electric clock in living room stopped.
- B4. Exterior - Mortar separation at south end of garage window sill.
- C4. Exterior - Vertical mortar crack thru one brick course underneath south end of sill of east window in bedroom No. 4.
- D4. A.D.T. burglar alarm system removed.
- E4. Exterior - Weathered chip fell off edge of brick located eight courses above stem wall and four bricks north of southeast corner of garage.
- F4. Exterior - Sheet metal weather cap at southwest corner of garage is loose.
- G4. T.V. inspected by T.V. repairman.*
- H4. Exterior - Horizontal mortar separation extended two bricks at upper right corner of garage window.
- I4. All wall hung lamps, mirrors, and pictures; and all glassware placed in living room. Later returned to original positions. (See note below.)
- J4. Clock in living room started by moving hands.
- K4. Exterior - Horizontal mortar separation along top of stem wall starts at garage door and extends 14" west.
- L4. Exterior - Portion of concrete patch along top of stem wall west of back door to garage has fallen off.
- M4. Paint is flaking from bathroom ceiling.
- N4. Paint and caulking cracks have become worse during month.

* See separate letter report dated September 23, 1964 on T.V. inspections.

NOTE: Furnishings in Test Houses No. 1, 2 & 4 had been prematurely assembled for removal due to misunderstanding of date on work order.

SUMMARY OF INSPECTION FINDINGS (B) - SEPTEMBER 1964 - PAGE 1 of 3

	Test House No. 5		Test House No. 6	Test House No. 7	Test House No. 8	Test House No. 9	Test House No. 10	Test House No. 11	
Date	Struct.	Furn.	(N. W. 19th St.)		(Park Pl.)		(Norman)	(Norman)	Date
			Occupied Residences						
1	† A,B		†	†		†			1
2	† A,B		†	† U			† HH	†	2
3			† S	†	†	† Z			3
4							† II	†	4
5					†				5
6									6
7			†	†	†	†			7
8	† A,B					† AA	†	†	8
9	† A,B,C		†	†	†		†	†	9
10	† A,B,D,E		†	†	†	† BB,CC			10
11							†	†	11
12									12
13									13
14	† F,G					†	†	†	14
15	† A,B,I,J	H	†	†		†			15
16	† A,B		† T	†	†		† JJ	†	16
17			†	†	†				17
18							†	†	18
19					†	†			19
20									20
21	† A,B,K								21
22	† A,B		†	†		† DD		†	22
23			†	†	†	†	†	†	23
24	† A,B,L,M		†	†	† W,X,Y	†	†		24
25							†	†	25
26					†				26
27									27
28	† A,B,N				†	† EE,FF	†	†	28
29			†			† GG			29
30	† A,B,O, P,Q,R		†	† V			† KK	†	30
×									×
	† Days when house was inspected.								

SUMMARY OF INSPECTION FINDINGS (B) - SEPTEMBER 1964 - PAGE 2 of 3

Test House No. 5

- A. New wall cracks have appeared.
- B. Extensions of existing wall cracks have appeared.
- C. Exterior - Blisters in mortar on foundation under parlor window.
- D. Vertical paper split 10" long north of windows in bedroom No. 14.
- E. Exterior - Mortar on foundation continues to disintegrate. Situation particularly severe under dining room windows.
- F. Plaster dust on mantle from crack in southeast corner of living room.
- G. Pieces of plaster on water closet and floor from crazed area above water closet and heater in bath No. 5.
- H. T.V. inspected by T.V. repairman. See separate letter report dated September 23, 1964 on T.V. inspections.
- I. Open seam in wallpaper of bedroom No. 14.
- J. Wallpaper crack 4" long north of window in bedroom No. 14.
- K. Pieces of plaster on water closet from crazed area above water closet in bath No. 5.
- L. Piece of plaster approximately 6" square fell from wall above water closet in bath No. 5.
- M. Small pieces of plaster fell from wall in kitchen.
- N. An above average number of 29 cracks and extensions noted.
- O. Bulges in plaster of east wall of bath No. 5, east wall of bedroom No. 12, and south wall of bath No. 13.
- P. Window shades are gradually being ripped to shreds in the course of window inspections.
- Q. The occurrence of ceiling cracks has been greater this month.
- R. "Blister" or "soft spots" have appeared on the mortar covered foundation this month.

Test House No. 6

- S. Wall crack approximately 4" long above door in dining room.
- T. Ceiling crack has extended 12" in dining room.

Test House No. 7

- U. Wall crack starts at top of window and runs up to ceiling in bathroom.
- V. Wall crack starts at floor and extends up 32" on south wall of dining room.

Test House No. 8

- W. Wall crack on north wall of dining room extends from top of door to ceiling.
- X. Wall crack on east wall of bedroom No. 7 extends from top of center window to ceiling.
- Y. Wall crack on east wall of bedroom No. 8 extends from top of south window to ceiling.

Test House No. 9

- Z. South wall crack in bedroom No. 11 has extended 10".
- AA. West wall crack in dining room has extended to ceiling.
- BB. East wall crack from window to floor.
- CC. West wall crack extends from light switch to wall heater.
- DD. Cracked pane in east window on south wall of kitchen.
- EE. Horizontal wall crack on north wall of bedroom No. 11 runs from window to east wall.
- FF. Vertical wall crack on west wall extends from top of window to ceiling.
- GG. Vertical wall crack on south wall of living room extends from top of door to ceiling.

SUMMARY OF INSPECTION FINDINGS (B) - SEPTEMBER 1964 - PAGE 3 of 3

Test House No. 10

- HH. Horizontal south wall crack has extended to meet vertical crack in dining room.
- II. Hairline north wall cracks have appeared in patched areas in bathroom.
- JJ. East wall crack in bathroom.
- KK. Horizontal east wall crack 12" long in bedroom No. 14.

Test House No. 11 - No changes noted.

SUMMARY OF INSPECTION FINDINGS (A) - OCTOBER 1964 - PAGE 1 of 3

Test House No. 1		Test House No. 2		Test House No. 3		Test House No. 4		Date
Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	Struct.	Furn.	
† A, B		† A, E, A2		† A, B		† A, B	A4	1
								2
								3
								4
†	A1	† B2		† A3		†		5
								6
† B1, C1		†		† B3		† B4, C4		7
								8
†		†		† C3, D3		† D4		9
								10
								11
† D1		†		†		† E4, F4		12
								13
† E1, F1, G1		†		†		†		14
† H1, I1		† C2		†		† H4		15
								16
								17
								18
†	J1	†		† F3	E3	† I4		19
								20
† K1	L1	†		† G3		† J4		21
†		† E2	D2	†		† K4		22
								23
								24
								25
† M1		†		†		†		26
†		†		†		†		27
								28
†		† F2		†		†	L4	29
								30
								31
END OF PROGRAM								
† Days when house was inspected.								

SUMMARY OF INSPECTION FINDINGS (A) - OCTOBER 1964 - PAGE 2 of 3

General

- A. New nail head appearances through paint coats on gypsum board walls and ceilings of all houses continue sporadically.
- B. Extensions of existing (and the appearance of some new) hairline cracks in paint coats on gypsum board walls and ceilings of all houses appear sporadically.

Test House No. 1

- A1. Inspector started electric clock which was unplugged by unknown party.
- B1. Exterior - A 3" extension of horizontal mortar separation under top course of bricks adjacent to north end of garage door.
- C1. Exterior - An 8" horizontal offshoot of vertical mortar separation below sill of north window of bedroom No. 6.
- D1. Exterior - A 7" horizontal mortar separation under second course of bricks from top of wall 4" east of north window of bedroom No. 6.
- E1. Exterior - A 20" extension of masonry crack 10" below sill of north window of bedroom No. 6.
- F1. Exterior - A 10" horizontal mortar separation below sill of east window of bedroom No. 6.
- G1. Exterior - A diagonal masonry crack below east window of bedroom No. 6.
- H1. Exterior - Horizontal and vertical mortar separations enclose first and second bricks south of northwest corner of top course of bricks.
- I1. Exterior - Extension of diagonal crack at lower left corner of living room window now terminates on grade.
- J1. Inspector started electric clock which was not running.
- K1. Exterior - Vertical mortar separation below window of bedroom No. 6.
- L1. Wall mounted telephone removed during inspection.
- M1. Exterior - Vertical mortar separation between first and second bricks west of southeast corner below window sill level.

Test House No. 2

- A2. Extension of existing (and appearance of some new) seam splits at intersection of walls and ceilings appear sporadically.
- B2. Exterior - Horizontal mortar separation along top of stem wall extends east four bricks from northwest corner.
- C2. Door handle assembly on front screen door is loose.
- D2. Bolts holding weight of dresser mirror have loosened permitting mirror to lean away from wall in bedroom No. 18.
- E2. Intermittent mortar crack along top of stem wall on west side of garage.
- F2. Shower curtain rod found in bath tub of bath No. 5.

Test House No. 3

- A3. Extension of horizontal grout crack on south wall of bath.
- B3. Inspector unable to light pilot on furnace.
- C3. Inspector found toilet running. Could not correct, so turned off water to tank.
- D3. General expansion of cracks around border of tile wainscot on W wall of bath just N of door. Entire wainscot may fall off wall.
- E3. Inspector found electric clock stopped. Clock restarted okay.
- F3. Exterior - A 7" vertical mortar separation at intersection of north side of chimney and west wall.
- G3. Exterior - Horizontal E-W crack between 1st and 2nd brick from N end of S window on E wall has turned the corner and now extends vertically through the sill.

SUMMARY OF INSPECTION FINDINGS (A) - OCTOBER 1964 - PAGE 3 of 3

Test House No. 4

- A4. Vertical hold on TV set will not control picture flopover.
- B4. Exterior - Vertical mortar separation east of the ninth brick east of the northwest corner in the soldier course at top of wall.
- C4. Exterior - Vertical hairline crack in concrete stem wall approximately 18" west of window of bedroom No. 6.
- D4. Exterior - Extension of diagonal masonry crack under east window of bedroom No. 4. Crack terminates at stem wall.
- E4. Exterior - Two vertical mortar separations, one horizontal mortar separation, and one diagonal mortar separation noted.
- F4. A forced entry through the rear door of garage has occurred since last inspection.
- G4. Rear door to garage has not been repaired.
- H4. Exterior - New mortar separation at upper left corner of rear garage door extends up through soldier course.
- I4. Exterior - Vertical mortar separation four courses above stem wall at left edge of northwest corner brick on north wall.
- J4. Rear door to garage has been repaired.
- K4. Vertical mortar separation on west side of brick at upper right corner of kitchen window.
- L4. TV picture fades in and out.

SUMMARY OF INSPECTION FINDINGS (B) - OCTOBER 1964 - PAGE 1 of 3

	Test House No. 5		Test House No. 6	Test House No. 7	Test House No. 8	Test House No. 9	Test House No. 10	Test House No. 11	
Date	Struct.	Furn.	(N.W. 19th St.)			(Park Pl.)	(Norman)	(Norman)	Date
Occupied Residences									
1	†A5,C5		†A6,B6	†		†A9,B9			1
2				†	†		†A10	†A11	2
3					†				3
4									4
5	†A5,B5,D5				†A8	†	†B10	†B11	5
6			†C6	†		†			6
7	†A5,B5,E5		†	†	†		†C10	†B11	7
8			†	†	†B8,C8,D8	†C9			8
9	†A5,B5,F5						†D10	†B11	9
10									10
11									11
12	†A5,B5, †E5,F5,G5								12
13			†C6	†	†	†D9	†E10		13
14	†A5,B5		†D6	†A7,B7,C7	†E8,F8	†E9,F9, †G9,H9	†F10	†B11	14
15	†A5,B5		†E6,F6	†D7,E7	†G8,H8	†		†C11	15
16							†G10	†D11	16
17									17
18									18
19	†A5,B5,H5				†		†H10	†E11	19
20			†G6	†	†	†	†F10	†	20
21	†A5,B5		†H6	†		†			21
22	†A5,B5		†	†	†I8,J8,K8	†I9			22
23							†I10	†D11	23
24									24
25									25
26	†A5,B5,I5				†	†	†J10	†	26
27	†A5,B5		†I6,G6,J6	†		†			27
28			†K6	†	†L8		†K10	†	28
29	†A5,B5, †J5,K5		†	†F7		†			29
30							†	†	30
31					†				31
				END OF PROGRAM					
† Days when house was inspected.									

SUMMARY OF INSPECTION FINDINGS (B) - OCTOBER 1964 - PAGE 2 of 3

Test House No. 5

- A5. New wall cracks have appeared.
- B5. Extension of existing wall cracks have appeared.
- C5. A 4" split in wallpaper on west wall of bedroom No. 14.
- D5. Intermittent paper split on north wall of bedroom No. 14.
- E5. General opening of previously patched cracks on ceiling of staircase.
- F5. General opening of previously patched cracks on ceiling and east wall of hall.
- G5. Additional plaster has fallen from cracked area behind heater of bath No. 5.
- H5. Wall is crazing on both sides of door on north wall of kitchen.
- I5. Horizontal crack in tile of bath No. 13.
- J5. Additional plaster has fallen from previously reported areas.
- K5. Refrigerator not working.

Test House No. 6

- A6. North and east wall crack noted in kitchen.
- B6. West wall crack noted in dining room.
- C6. North wall crack in dining room noted.
- D6. South, east, and west wall cracks noted in bedroom No. 7.
- E6. Ceiling crack extension in dining room.
- F6. North and west wall cracks in kitchen.
- G6. South wall crack in bedroom No. 7.
- H6. South wall crack in bedroom No. 8.
- I6. North wall crack in kitchen.
- J6. East wall crack in living room.
- K6. North and east wall cracks in living room.

Test House No. 7

- A7. Cracks noted on north wall of living room and on south wall of dining room.
- B7. South wall crack noted in bedroom No. 6.
- C7. Ceiling and west wall cracks noted in breakfast room.
- D7. South wall crack noted in dining room and ceiling crack in bath.
- E7. East wall and ceiling cracks noted in bedroom No. 3.
- F7. North and south wall cracks noted in bedroom No. 6.

Test House No. 8

- A8. West wall crack noted in bedroom No. 8.
- B8. South wall crack noted in living room.
- C8. South wall crack noted in bedroom No. 7.
- D8. East wall crack noted in bedroom No. 8.
- E8. Ceiling and west wall cracks noted in the hall.
- F8. Ceiling and north wall cracks noted in bedroom No. 8.
- G8. Two north wall cracks noted in living room.
- H8. Two south wall and one north wall crack noted in bedroom No. 7.
- I8. North wall crack noted in bedroom No. 8.
- J8. East wall crack noted in bedroom No. 7.
- K8. Cracks noted on east wall of living room and hall.
- L8. East wall crack noted in kitchen and west wall crack in hall.

SUMMARY OF INSPECTION FINDINGS (B) - OCTOBER 1964 - PAGE 3 of 3

Test House No. 9

- A9. East wall crack noted in dining room.
- B9. East and south wall cracks noted in bedroom No. 11.
- C9. West and north wall cracks noted in bedroom No. 11.
- D9. Crack noted in south wall of dining room.
- E9. East and west wall cracks noted in dining room.
- F9. East and south wall cracks noted in kitchen.
- G9. Ceiling crack noted in bath No. 14 and west wall crack in staircase.
- H9. East and south wall cracks in bedroom No. 11.
- I9. South and west wall cracks noted in bedroom No. 11.

Test House No. 10

- A10. Thirteen wall cracks noted.
- B10. Eleven wall cracks noted.
- C10. Ten wall cracks and two ceiling cracks noted.
- D10. Seven wall cracks noted and three ceiling cracks.
- E10. Three wall and two ceiling cracks noted.
- F10. Four wall cracks noted and one ceiling crack.
- G10. Eight wall cracks noted and one ceiling crack.
- H10. Four wall cracks and five ceiling cracks noted.
- I10. Five wall cracks noted.
- J10. One wall crack noted.
- K10. Four wall cracks noted.

Test House No. 11

- A11. Five wall cracks noted.
- B11. Four wall cracks noted.
- C11. Two wall cracks noted.
- D11. One wall crack noted.
- E11. Three wall cracks noted.

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1
(SELECTED DAILY FLIGHTS)

PAGE 1 of 10

STRAINS

DATE	FLY No	TYPE	O.P. AIR. (psf)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS
				TRANSDUCER No. - STRAIN ($\mu\text{in}/\text{in}$)															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
2/5/64	3	F-104	0.94	—	0.84	2.05	10.65	7.16	4.35	2.72	2.44	0.58	7.150	11.50	0.51	—	—	—	
2/6/64	7	F-104	1.17	11.50	0.84	3.22	10.32	5.47	6.42	3.56	3.45	0.85	20.74	9.20	0.85	2.37	6.24	10.80	
2/11/64	10	F-104	1.30	11.72	1.36	2.97	19.60	7.35	8.52	4.82	10.86	1.04	27.86	12.27	1.53	3.72	10.85	13.70	
2/9/64	25	F-104	0.88	8.74	1.88	2.42	11.27	4.79	6.76	3.57	2.67	0.72	18.27	9.76	1.15	2.62	9.37	12.82	
2/9/64	26	F-104	0.88	9.53	1.78	2.55	11.81	4.79	7.42	3.65	3.67	0.75	16.70	9.35	1.15	2.30	7.14	12.99	
2/10/64	30	F-104	1.34	8.23	1.57	2.82	11.50	4.15	7.54	3.97	3.69	0.72	18.77	10.33	0.99	2.81	9.58	11.84	
2/10/64	32	F-104	1.32	8.34	1.67	2.35	8.77	3.92	7.54	3.94	4.55	0.72	18.11	8.75	1.49	2.89	10.67	—	
2/10/64	35	F-104	1.09	—	1.40	—	12.35	6.03	7.37	4.46	4.88	1.01	19.41	11.41	1.15	3.06	8.75	14.39	
2/11/64	39	F-104	1.19	11.39	1.09	—	11.04	5.63	4.46	5.71	3.84	1.22	20.03	9.52	1.10	2.73	7.05	12.46	
2/17/64	49	F-104	1.77	15.47	2.24	5.33	15.64	8.99	6.85	7.61	8.91	2.11	16.05	12.78	1.51	5.14	9.20	—	
2/17/64	51	F-104	1.51	11.42	1.93	5.44	16.22	7.13	6.77	4.92	6.89	1.22	19.03	11.59	1.09	5.75	10.34	14.79	
2/17/64	53	F-104	1.11	11.42	1.63	4.91	14.72	8.32	8.09	—	4.49	1.13	16.76	11.33	1.34	5.01	—	18.81	
2/14/64	58	F-104	1.36	16.41	2.16	5.13	12.88	8.55	6.24	5.55	7.57	1.25	13.26	10.21	1.26	2.20	7.56	12.05	
2/14/64	59	F-104	1.31	15.33	2.05	4.88	13.69	6.63	5.67	5.71	6.33	1.25	16.23	11.24	1.17	2.75	8.68	14.59	
2/14/64	61	F-104	1.03	17.00	1.70	3.03	13.87	6.91	6.81	3.86	4.73	1.39	24.86	14.44	1.38	3.35	10.40	11.59	
2/16/64	70	F-104	1.14	10.54	1.85	2.98	13.24	6.59	6.97	5.67	6.19	1.20	16.76	12.01	1.67	12.01	0.93	2.80	
2/16/64	76	F-104	1.67	—	2.36	4.63	8.76	7.08	10.26	5.83	8.03	1.76	17.61	10.81	1.61	3.44	9.03	—	
2/17/64	79	F-104	1.42	8.44	1.67	3.31	9.66	4.95	7.06	3.49	3.13	1.19	15.15	10.03	1.18	2.92	7.51	10.06	
2/17/64	82	F-104	1.33	16.16	1.46	4.47	11.04	6.28	8.13	4.52	4.52	1.30	16.58	11.68	0.85	3.32	9.27	11.02	
2/18/64	87	F-104	1.88	—	1.67	5.62	13.82	9.80	7.86	—	7.16	1.43	16.61	12.87	1.02	2.94	10.37	14.27	
2/18/64	88	F-104	1.32	14.89	1.75	2.98	10.62	7.05	7.86	4.65	6.26	1.27	18.11	11.97	0.93	2.94	7.46	14.99	
2/14/64	112	F-104	1.79	11.95	3.34	4.23	13.75	7.13	9.63	4.15	3.83	1.19	22.93	13.23	1.17	3.26	10.85	18.21	
2/12/64	119	F-104	1.36	9.35	2.25	3.58	14.19	3.46	8.92	5.52	3.04	1.02	6.14	10.38	1.15	3.60	10.18	19.75	
2/12/64	122	F-104	1.60	13.50	3.52	3.92	15.32	4.18	10.05	4.96	4.36	1.02	8.11	16.60	1.69	4.00	10.42	13.56	
2/13/64	125	F-104	1.40	—	2.47	4.91	13.62	8.08	8.49	6.67	6.26	2.05	18.88	12.87	1.51	3.34	9.29	13.03	
2/13/64	129	F-104	0.89	—	2.53	3.33	11.24	5.63	6.94	3.68	3.54	0.87	15.63	9.52	1.09	2.59	7.96	12.07	
2/10/64	135	F-104	1.37	14.98	3.27	4.17	14.96	6.25	12.15	5.76	4.36	1.19	25.50	15.32	1.78	3.97	12.46	21.48	
2/24/64	138	F-104	1.52	12.22	3.38	3.33	11.42	5.39	10.69	5.12	3.37	1.03	23.57	12.10	1.10	3.56	8.87	15.12	
2/26/64	145	F-104	1.37	—	2.51	5.71	14.43	8.91	9.30	5.85	6.35	1.76	17.68	13.75	1.96	3.20	9.65	14.75	
2/27/64	150	F-104	0.97	—	2.69	3.86	12.85	6.97	7.45	—	5.94	1.51	18.96	11.58	1.17	3.00	9.89	14.27	
2/27/64	152	F-104	1.47	8.75	2.80	4.87	12.51	5.91	8.92	4.76	6.01	1.95	22.19	13.30	2.10	3.40	9.65	18.99	

No TONE

* NOT READABLE

* NOT MEASURABLE

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1
(SELECTED DAILY FLIGHTS)

STRAINS

PAGE 2 of 10

DATE	FLIGHT TYPE	O.P. (psi)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS
TRANSDUCER NO. -- STRAIN (μm/in)																		
2/27/64	137 F-104	1.09	10.30	3.00	4.20	14.33	6.32	8.84	3.33	6.74	1.95	12.39	10.35	1.59	2.92	8.68	12.13	OFF RECORD
2/18/64	155 F-104	1.02	6.31	—	3.17	1.44	6.48	6.55	1.03	4.14	3.13	27.26	7.16	9.31	2.43	3.00	19.38	
2/18/64	162 F-104	1.28	8.89	2.25	3.08	10.15	3.33	8.63	4.20	4.27	0.86	14.27	9.33	0.92	2.11	11.02	10.87	
2/29/64	166 F-104	1.45	14.06	2.90	5.54	11.76	8.01	10.42	3.39	6.86	1.51	16.70	12.34	1.47	3.24	10.40	11.83	
2/29/64	169 F-104	1.60	10.88	3.01	4.43	12.43	7.44	4.96	4.24	3.50	1.11	14.25	8.63	1.12	2.39	6.34	11.83	
3/1/64	173 F-104	1.15	10.21	1.92	4.63	10.85	7.77	8.10	4.70	3.48	2.09	19.33	12.91	1.54	3.52	8.50	12.25	
3/2/64	181 F-104	1.30	10.80	1.61	3.64	8.45	6.91	6.78	3.78	5.45	1.13	18.72	11.27	1.30	2.99	7.72	11.67	
3/2/64	182 F-104	1.47	9.18	1.51	3.43	7.53	6.08	6.95	3.86	4.64	1.21	16.92	10.59	1.12	2.81	7.85	11.16	
3/3/64	188 F-104	1.55	—	2.64	6.38	13.05	10.59	8.49	3.70	—	1.97	24.68	14.49	1.21	3.89	10.48	17.50	
3/3/64	189 F-104	1.05	8.56	1.90	3.61	10.33	6.70	4.00	2.97	5.45	0.95	17.04	10.93	0.87	2.60	6.45	13.25	
3/4/64	192 F-104	0.80	—	3.41	3.32	13.39	7.11	10.51	5.59	6.86	1.61	29.44	12.08	1.61	5.54	—	20.42	
3/5/64	193 F-104	0.87	15.91	1.81	1.95	22.70	4.17	6.62	3.81	4.12	0.85	15.51	11.15	1.36	3.29	9.89	13.25	
3/5/64	200 F-104	1.24	7.34	1.70	4.57	12.49	6.08	4.30	3.73	5.14	1.29	20.09	12.21	1.53	2.51	8.88	11.00	
3/6/64	207 F-104	1.82	15.25	2.24	5.66	10.39	8.54	7.16	6.64	7.29	1.36	19.10	13.27	1.21	3.17	9.57	13.75	
3/7/64	214 F-104	0.64	7.75	1.36	3.10	6.99	4.76	4.15	3.30	4.26	0.56	7.33	5.09	0.68	1.29	3.33	11.00	
3/9/64	215 F-104	1.13	12.84	1.70	2.96	12.60	5.34	6.95	3.30	2.92	1.43	12.80	11.19	1.62	2.61	6.39	12.33	
3/10/64	217 F-104	1.31	14.64	4.64	3.55	13.62	7.44	8.29	5.36	8.36	1.13	19.44	15.01	0.94	3.00	11.16	13.60	
3/10/64	226 F-104	1.72	11.42	1.79	4.74	15.55	7.11	8.29	5.27	6.22	1.78	20.31	12.51	1.12	2.83	8.62	13.09	
3/11/64	229 F-104	1.42	—	2.02	5.11	15.10	8.02	8.11	5.18	7.38	1.78	23.74	15.13	1.37	3.95	10.65	13.00	
3/11/64	233 F-104	1.66	11.91	2.13	5.03	13.51	6.95	9.26	4.21	5.75	1.62	22.86	13.27	1.80	3.86	10.52	13.00	
3/12/64	237 F-104	1.29	19.22	2.95	4.53	11.30	7.86	8.85	3.41	5.97	1.78	20.21	14.94	1.54	3.29	10.61	—	
3/12/64	239 F-104	1.29	13.43	2.45	3.95	12.30	6.04	8.05	3.64	4.76	1.46	18.89	13.27	1.20	3.29	10.22	—	
3/12/64	240 F-104	1.44	14.17	2.13	4.29	11.96	5.62	6.99	3.83	4.67	1.46	18.24	11.41	1.20	2.85	9.59	—	
3/13/64	246 F-104	1.80	11.50	2.11	3.28	12.41	7.55	5.62	4.78	8.87	1.70	17.04	12.35	1.37	2.73	12.17	14.64	
3/13/64	251 F-104	0.99	16.00	1.37	3.83	4.74	6.08	7.38	4.03	4.44	1.22	17.91	11.59	1.12	2.90	9.26	9.43	
3/14/64	259 F-104	2.24	13.80	1.90	3.20	13.73	6.90	6.85	3.68	5.34	1.46	21.43	13.95	1.37	3.48	10.52	12.82	
3/15/64	264 F-104	1.28	4.50	2.00	3.27	10.15	5.02	7.90	3.55	4.11	1.20	18.23	12.25	1.20	3.24	9.44	12.02	
3/15/64	265 F-104	1.47	7.53	1.90	4.11	12.07	6.49	7.46	3.64	4.31	1.60	19.75	13.17	1.72	3.01	9.64	12.02	
3/15/64	266 F-104	0.72	8.87	1.55	2.68	8.35	4.35	5.62	2.25	2.22	0.72	15.94	9.61	1.03	2.56	8.24	10.19	
3/16/64	272 F-104	1.98	13.68	2.52	5.11	12.04	8.60	7.33	4.77	5.00	1.85	20.66	14.97	1.90	3.43	10.94	14.47	
3/16/64	273 F-104	0.73	8.87	2.00	3.15	10.26	4.38	4.34	2.55	3.52	0.96	19.85	11.10	0.86	2.82	8.12	11.85	

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1 (SELECTED DAILY FLIGHTS)															STRAINS					PAGE 3 of 10				
DATE	FLIGHT NO.	TYPE	O.P. (Psf)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS					
No. 57-1111 (140/14)																								
3/19/64	276	F-104	1.48	—	2.93	5.08	14.11	9.52	12.25	7.36	7.02	1.35	26.47	16.85	1.96	4.67	—	15.05	* NOT READABLE					
3/19/64	280	F-104	1.57	—	2.30	4.23	16.24	3.18	8.96	4.15	5.15	1.35	18.45	4.61	1.70	4.26	11.21	12.45						
3/19/64	286	F-104	1.60	8.75	2.66	5.32	24.70	9.16	7.61	8.04	8.30	1.35	19.00	16.20	1.54	7.58	10.72	17.07						
3/19/64	287	F-104	1.46	8.50	2.66	5.08	25.99	9.41	6.64	6.42	6.22	1.54	19.22	17.12	2.06	3.17	11.54	17.07						
3/20/64	294	F-104	1.51	11.05	2.02	4.90	8.85	5.74	7.45	4.09	5.08	1.44	16.93	10.85	1.53	2.92	6.09	11.59						
3/20/64	295	F-104	0.95	—	1.59	3.72	9.07	5.01	—	—	—	1.12	18.45	9.55	1.02	3.09	5.58	11.59						
3/21/64	301	F-104	2.15	—	2.01	6.38	17.67	10.92	6.18	7.78	2.64	0.38	2.16	2.25	0.38	0.76	1.38	0.92						
3/22/64	305	F-104	1.51	—	2.43	6.48	14.76	8.21	8.76	4.69	7.71	2.97	20.40	14.75	1.80	3.44	11.42	16.22						
3/22/64	306	F-104	1.51	17.46	2.00	4.06	10.55	6.20	5.49	5.11	1.22	6.35	18.01	12.51	1.80	2.98	7.94	10.82						
3/23/64	311	F-104	1.11	12.11	2.11	3.83	9.69	6.34	6.20	3.55	4.58	1.28	16.39	10.59	0.94	2.81	7.50	11.85						
3/23/64	312	F-104	1.17	14.68	1.90	1.87	14.77	5.63	9.29	5.58	5.11	1.20	17.25	10.40	1.11	3.20	12.38	12.88						
3/23/64	313	F-104	1.05	18.60	1.37	3.41	16.91	5.99	5.75	2.54	3.70	0.96	18.54	10.67	1.02	2.64	15.00	9.79						
3/23/64	314	B-58	1.68	21.53	2.11	3.92	11.50	10.03	10.09	6.77	7.00	1.44	29.32	13.96	1.57	5.03	10.38	—						
3/23/64	315	F-104	1.48	15.90	1.69	5.79	13.52	11.62	13.28	6.09	6.32	1.68	31.48	15.94	2.04	4.26	11.38	16.22						
3/23/64	316	F-104	1.01	5.75	1.79	2.13	12.30	5.50	6.28	4.40	3.70	0.96	16.83	10.01	0.94	4.92	9.50	11.33						
3/23/64	317	F-104	0.86	12.96	1.90	3.24	8.34	8.56	7.35	3.89	4.64	0.80	15.95	11.59	0.94	2.82	7.85	11.33						
3/23/64	318	F-104	1.21	6.12	2.11	3.15	13.97	5.63	7.17	6.77	4.64	1.12	20.91	10.01	0.85	5.37	11.29	13.91						
3/24/64	319	F-104	1.36	9.68	1.51	4.94	5.49	6.96	8.46	4.67	6.90	1.61	20.13	12.30	1.78	3.63	8.21	13.07						
3/24/64	320	F-104	1.34	6.45	2.47	3.07	17.47	4.25	7.40	6.52	6.08	1.77	20.57	10.83	1.14	—	—	12.55						
3/24/64	321	F-104	1.02	8.44	1.08	2.47	5.15	2.52	3.83	1.97	2.50	0.81	13.94	11.49	0.88	1.82	5.29	7.58						
3/24/64	322	F-104	1.24	8.69	1.94	2.64	16.46	3.02	6.59	5.66	4.06	1.77	21.90	12.14	1.05	5.02	9.57	12.29						
3/24/64	323	F-104	0.80	7.43	1.94	2.13	12.66	2.35	7.16	4.29	4.73	1.29	18.14	7.49	1.05	4.50	12.46	10.46						
3/24/64	324	F-104	0.80	9.06	1.83	3.32	6.72	4.70	5.61	2.40	3.18	0.96	14.16	8.96	0.88	2.64	5.92	9.41						
3/24/64	325	F-104	1.02	7.44	1.72	5.54	12.99	6.80	4.72	3.95	4.33	1.45	16.81	10.29	1.14	3.07	8.82	13.07						
3/24/64	326	F-104	0.84	—	1.40	2.64	16.91	4.20	4.99	4.29	5.68	1.05	13.71	7.22	0.88	3.12	7.56	13.59						
3/25/64	327	B-58	1.32	—	1.81	3.15	11.72	5.46	9.20	6.86	3.33	1.36	17.47	11.50	1.36	2.74	12.29	20.98						
3/25/64	328	F-104	1.35	12.44	1.38	3.24	12.85	5.29	7.17	3.69	3.79	1.12	14.85	11.77	1.04	2.66	8.63	13.21						
3/25/64	329	F-104	1.03	11.95	1.70	3.75	13.86	6.04	6.11	3.43	4.40	1.60	14.55	11.77	1.12	2.57	7.19	15.36						
3/25/64	330	F-104	1.03	16.14	1.92	4.43	15.44	7.44	6.37	5.58	6.62	1.52	14.41	10.10	1.12	2.30	8.23	15.09						
3/25/64	331	F-104	1.13	13.55	1.49	4.66	12.85	6.95	6.20	5.32	2.77	1.76	14.85	11.63	1.21	2.39	7.41	14.55						
3/26/64	332	F-104	0.87	15.53	1.38	1.87	10.64	3.56	6.96	1.81	3.50	0.81	17.71	10.62	0.86	2.41	11.08	10.44						
3/26/64	333	F-104	1.23	—	1.38	3.07	12.32	3.97	7.61	2.81	4.44	1.17	18.76	12.21	1.20	2.17	11.58	8.30						
3/26/64	334	F-104	1.19	—	1.35	4.77	13.44	5.79	7.61	4.77	5.65	1.30	16.82	11.42	1.54	7.32	4.25	12.97						

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1
(SELECTED DAILY FLIGHTS)

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STRAINS

DATE	FLYING TYPE	O.P. AIR.	TRANSDUCER No. — STRAIN ($\mu\text{in/in}$)															REMARKS
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
3/16/64	335 F-104	2.38	—	1.92	4.17	17.25	6.86	10.17	8.78	11.04	1.78	25.33	46.32	2.27	3.75	—	—	
3/16/64	336 F-104	1.29	—	1.70	3.15	14.70	5.28	8.85	4.75	6.12	1.70	26.91	17.27	1.77	3.15	9.57	14.79	
3/16/64	337 F-104	—	—	1.49	4.77	15.74	6.86	6.99	6.82	6.12	1.86	14.85	12.47	1.67	2.47	9.83	17.75	
3/17/64	338 F-104	1.13	14.68	1.70	4.52	21.06	6.62	7.61	5.11	4.71	1.62	19.00	17.80	1.29	3.15	11.96	15.50	
3/17/64	339 F-104	1.55	—	1.70	3.96	20.16	7.61	7.72	4.86	6.37	1.94	20.33	14.60	1.72	7.88	6.30	16.74	
3/17/64	340 F-104	1.13	10.92	2.11	4.15	14.65	6.29	8.33	3.60	4.60	1.70	19.11	14.20	1.78	2.96	11.25	14.01	
3/17/64	341 F-104	1.11	11.79	2.11	4.15	14.65	5.54	9.58	3.75	2.91	0.89	17.80	17.00	1.78	2.88	9.15	17.15	
3/17/64	342 F-104	0.89	7.82	1.37	2.88	11.50	5.24	4.60	3.09	3.99	0.97	16.26	12.21	0.87	1.95	9.25	9.86	
3/17/64	343 F-104	1.45	14.88	2.11	3.05	8.79	4.88	8.72	5.83	5.14	1.30	20.65	12.21	1.78	3.05	11.13	—	
3/17/64	344 F-104	—	10.42	1.58	3.26	10.71	4.97	6.51	2.15	3.85	0.97	16.48	11.81	0.95	2.20	9.25	17.17	
3/17/64	345 F-104	—	4.91	1.58	3.55	17.07	3.44	5.7	2.15	3.66	0.97	20.65	10.88	0.95	2.28	9.75	10.84	
3/17/64	346 F-104	1.58	14.64	2.00	4.91	14.20	6.05	8.05	3.75	5.27	1.22	19.91	17.27	1.56	3.38	11.50	12.97	
3/17/64	347 F-104	1.31	11.24	1.69	3.98	11.95	4.47	6.32	2.57	4.73	0.97	17.58	11.94	1.38	2.71	9.75	10.89	
3/18/64	348 F-104	1.03	17.72	1.81	3.81	8.85	6.81	5.27	4.60	5.29	1.20	12.77	9.55	1.20	3.15	1.77	—	
3/18/64	349 F-104	1.28	—	2.56	5.75	14.57	8.21	6.57	3.41	6.42	1.60	17.44	11.28	1.39	2.79	9.50	—	
3/18/64	350 F-104	0.99	10.57	2.02	2.96	10.86	4.60	6.85	2.90	4.01	1.44	19.53	10.09	1.20	3.05	9.38	—	
3/18/64	351 F-104	1.24	11.51	1.81	4.23	14.74	5.75	6.41	4.00	4.01	1.28	19.31	11.68	1.29	3.21	9.00	—	
3/18/64	352 F-104	1.24	16.55	2.24	6.20	19.90	7.88	10.18	4.77	4.68	1.20	25.61	15.79	1.54	4.23	17.17	—	
3/18/64	353 F-104	0.95	15.66	1.92	4.74	17.89	7.06	5.44	4.60	4.28	1.20	16.71	12.21	1.03	2.88	9.25	—	
3/18/64	354 F-104	1.20	12.97	1.92	4.06	12.77	6.57	8.25	4.26	4.48	1.20	17.19	17.27	1.29	3.21	9.88	—	
3/18/64	355 F-104	1.18	15.04	2.02	5.08	14.22	7.55	5.71	3.71	5.89	1.44	14.76	17.27	1.20	2.79	9.38	—	
3/30/64	362 F-104	1.75	15.19	1.99	4.82	17.74	6.40	8.01	4.65	3.55	1.28	21.84	14.33	1.53	3.38	10.50	23.09	
3/31/64	365 F-104	1.28	17.94	1.70	5.07	16.69	6.40	6.59	4.03	5.02	1.60	18.17	17.40	1.27	3.13	10.05	14.27	
4/1/64	372 F-104	1.90	16.76	1.58	5.92	12.60	7.94	—	5.32	7.02	2.70	21.59	15.18	1.96	3.80	11.04	17.46	
4/2/64	383 F-104	1.17	10.10	1.38	3.45	9.14	4.37	—	2.97	3.80	1.04	15.17	10.01	0.92	2.76	6.90	10.01	
4/3/64	384 F-104	1.92	17.60	2.42	5.75	17.28	8.97	—	5.98	6.67	1.96	22.47	15.57	1.73	4.60	17.11	15.18	
4/5/64	399 F-104	2.26	20.87	1.78	6.56	20.01	6.67	10.12	9.66	10.52	2.42	21.05	16.04	1.96	3.06	12.42	15.87	
4/6/64	401 F-104	1.28	31.79	1.49	5.83	42.47	7.55	6.81	6.36	5.95	1.62	17.47	17.27	1.29	3.40	11.50	17.00	
4/6/64	407 F-104	1.32	18.11	1.27	6.67	22.60	8.40	7.02	7.02	6.79	1.73	18.29	14.66	1.15	4.49	12.94	15.53	
4/7/64	415 F-104	1.70	11.94	1.73	6.21	17.97	7.98	7.02	5.41	5.18	1.84	18.29	17.08	1.50	3.11	11.16	28.98	
4/8/64	416 F-104	1.09	10.94	1.37	3.70	9.18	3.28	4.04	2.15	4.04	1.30	17.44	10.14	1.07	2.80	3.75	10.70	
4/8/64	418 F-104	1.26	19.68	1.48	4.65	12.71	6.54	9.29	7.15	4.95	2.67	20.91	17.51	1.46	3.21	11.38	12.00	

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1																	
(SELECTED DAILY FLIGHTS)																	
STRAINS																	
PAGE 5 of 10																	
DATE	FLIGHT TYPE	O.P. (PSF)	1	2	3	4	5	6	7	8	TRANS-DUCER NO. — STRAIN (MICROIN)					REMARKS	
											9	10	11	12	13	14	15
4/8/64	420 F-104	1.22	15.31	1.19	5.05	12.10	7.88	6.41	9.66	6.06	1.75	20.71	11.95	1.20	7.20	9.50	15.00
4/8/64	422 F-104	1.54	18.95	1.96	6.44	16.91	9.16	8.25	7.25	6.57	1.61	20.76	15.87	1.73	7.80	17.46	14.84
4/9/64	426 F-104	1.16	—	1.96	4.99	17.89	8.29	10.00	5.37	6.49	1.96	20.57	1.67	1.76	7.97	12.80	17.55
4/9/64	428 F-104	1.75	11.77	3.45	7.59	33.81	6.10	9.78	10.70	8.74	1.50	22.77	17.67	1.61	8.25	22.15	19.72
4/10/64	478 F-101	1.47	31.85	7.06	7.89	15.08	7.06	15.28	3.55	7.37	0.72	70.16	16.85	1.20	7.64	—	—
4/10/64	479 F-101	1.62	31.05	8.05	4.07	16.22	9.20	17.34	4.37	4.60	1.04	70.11	17.60	1.17	10.97	16.56	27.26
4/11/64	440 F-101	1.87	27.77	4.01	4.15	20.64	8.87	12.20	6.17	5.86	1.68	71.47	16.86	1.72	5.94	10.00	76.76
4/11/64	441 F-101	2.26	21.05	4.07	5.64	21.05	9.66	12.08	11.16	6.10	1.73	28.98	15.35	2.42	6.21	11.96	77.85
4/12/64	447 F-104	1.21	15.55	1.81	4.48	11.65	6.50	9.20	4.12	6.49	1.54	20.97	14.77	1.46	7.60	9.88	16.78
4/12/64	451 F-104	1.25	11.04	2.07	4.49	11.04	7.45	7.55	4.14	7.68	1.77	25.88	9.66	1.84	4.77	8.67	15.18
4/12/64	452 F-104	1.36	15.80	1.92	4.82	8.96	4.00	9.65	5.15	7.07	1.75	20.97	8.76	1.67	4.77	11.25	17.65
4/12/64	459 F-104	1.55	—	12.66	5.18	4.14	11.50	9.55	1.73	7.98	4.37	27.26	9.49	6.44	4.95	7.28	15.18
4/12/64	461 F-104	1.44	11.75	2.57	4.67	10.68	4.87	9.74	4.46	7.72	1.76	22.74	15.79	2.06	4.44	—	—
4/14/64	468 F-104	1.71	18.67	7.68	6.56	18.67	12.65	12.94	7.87	9.20	1.61	26.22	19.15	2.70	5.18	15.01	—
4/15/64	477 F-104	1.29	10.75	3.11	7.80	12.42	7.11	8.97	7.57	7.22	1.15	27.46	12.08	1.78	3.68	10.57	—
4/16/64	482 F-104	1.11	17.87	1.77	4.14	25.19	9.89	7.02	6.44	5.64	1.27	18.98	11.56	1.78	7.11	9.14	—
4/17/64	486 F-104	1.75	19.67	1.77	4.72	9.66	8.74	9.89	4.71	8.67	1.15	25.88	12.59	1.15	2.07	10.01	2.76
4/18/64	494 F-104	0.66	7.94	1.78	2.19	7.59	2.07	4.14	1.15	2.19	0.69	12.08	7.35	0.69	7.22	6.21	—
4/18/64	495 F-104	1.09	8.18	1.79	3.45	12.54	3.70	7.48	7.26	7.72	0.89	18.89	10.09	1.04	7.97	8.78	—
4/19/64	507 F-104	1.55	6.90	1.61	4.26	17.94	7.94	8.67	6.56	8.86	1.61	18.67	12.94	2.57	6.79	6.71	12.42
4/20/64	506 F-104	1.22	10.70	1.96	7.45	10.01	4.95	5.18	2.77	2.88	0.92	17.46	7.42	1.50	2.88	5.69	9.66
4/21/64	516 F-104	1.81	17.46	1.50	7.06	15.87	4.14	8.74	4.87	5.98	1.77	21.74	12.08	1.84	4.72	9.49	17.11
4/22/64	521 F-104	1.49	14.15	2.58	4.46	16.75	7.78	8.57	4.55	5.54	1.62	27.45	14.86	1.65	7.84	16.42	12.59
4/23/64	529 F-104	1.41	6.85	1.81	7.78	16.12	4.72	6.11	4.67	2.57	0.88	27.56	10.92	1.58	7.65	16.81	10.68
4/24/64	536 F-104	1.30	9.46	2.28	4.44	20.16	8.05	8.44	5.76	4.72	1.12	19.44	15.37	1.48	7.94	11.77	10.66
4/25/64	539 F-104	1.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4/25/64	540 F-104	1.54	19.94	3.41	6.61	27.96	12.62	12.75	7.98	16.61	1.70	28.87	20.17	1.59	5.47	29.94	18.07
4/26/64	544 F-104	1.76	14.00	2.72	5.07	28.00	9.58	10.10	6.94	6.87	1.44	26.70	16.72	1.67	4.81	11.00	12.84
4/27/64	557 F-104	1.80	32.27	3.51	6.75	17.98	10.27	—	10.74	5.62	2.22	29.17	17.11	2.25	4.76	15.70	17.07
4/28/64	556 F-104	1.29	11.50	2.75	7.26	9.18	5.99	—	4.98	7.22	1.12	27.81	3.66	1.65	4.57	—	12.67
4/28/64	577 F-104	1.37	6.90	1.28	2.49	9.67	5.75	—	6.69	5.95	1.04	22.71	6.72	1.48	4.02	14.49	11.22
* COULD BE READING NO DEFLECTIONS																	
* TRAIN PASSING NO RECORD																	
NOT READABLE																	

NOT READABLE

* COULD BE WEARING
NO DEFLECTIONS

NOT READABLE

TRAIN PASSING
* NO RECORD

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1
(SELECTED DAILY FLIGHTS)

PAGE 6 of 10

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1																		
STRAINS																		
PAGE 6 of 10																		
REMARKS																		
IN - STRAIN (4000)																		
TRAVERSE																		
O.P. (PSI)																		
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15																		
DATE Hq. No. TYPE																		
4/18/64	555	F-104	0.76	10.48	1.78	2.75	8.74	1.47	—	3.75	3.60	1.20	19.44	4.08	0.96	4.68	—	10.66
4/18/64	559	F-104	1.81	12.78	3.51	3.95	17.81	4.28	—	5.72	7.17	1.52	25.99	12.12	1.87	5.66	—	16.55
4/18/64	560	F-104	0.72	17.64	2.74	3.17	9.41	6.73	—	5.83	5.91	0.72	11.14	6.85	1.05	1.97	6.85	10.94
4/18/64	561	F-104	1.29	26.07	3.09	7.98	15.90	10.88	—	5.75	6.77	1.28	21.06	6.72	1.13	4.2	10.40	17.74
4/18/64	562	F-104	1.01	27.00	1.60	6.61	9.63	8.72	—	4.92	5.08	0.80	8.52	8.03	0.70	2.96	6.59	8.70
4/18/64	563	F-104	0.72	14.82	1.70	2.75	6.27	4.04	—	4.20	4.91	0.42	6.55	4.35	1.17	1.64	3.95	7.01
4/30/64	577	F-104	2.22	23.67	5.28	4.18	26.88	14.19	—	12.57	12.29	2.04	31.64	22.56	2.68	6.89	18.91	20.98
5/1/64	578	F-104	1.41	18.77	3.41	5.23	12.99	10.03	—	4.63	6.35	1.61	17.92	16.31	1.73	4.18	14.50	13.10
5/2/64	590	F-104	1.21	14.46	2.58	2.40	12.77	6.66	10.70	4.73	6.60	0.97	37.77	17.54	1.48	3.78	8.50	16.71
5/3/64	593	F-104	1.67	15.86	3.12	5.10	11.80	8.97	10.82	6.01	8.90	2.27	26.54	16.04	2.26	10.17	12.25	15.84
5/3/64	598	F-104	1.63	18.29	3.01	4.76	13.62	8.52	11.36	5.09	7.17	1.46	21.68	14.29	1.57	3.80	11.70	14.69
5/4/64	602	F-104	1.72	19.30	3.17	5.08	14.78	8.48	12.03	6.79	7.22	2.08	28.58	15.55	2.06	4.41	11.91	14.60
5/5/64	604	F-104	1.94	16.49	3.15	6.66	16.57	10.64	10.68	5.75	6.66	1.85	30.97	16.36	2.72	3.44	10.15	15.51
5/5/64	613	F-104	2.19	11.42	1.52	3.89	10.67	5.01	6.30	3.47	3.94	1.29	23.23	11.36	1.67	3.44	7.61	10.96
5/6/64	620	F-104	1.67	15.25	3.90	5.03	22.25	4.57	14.17	6.60	9.69	1.82	27.24	17.18	1.74	4.98	7.67	12.87
5/7/64	628	F-104	1.65	23.75	3.55	5.92	13.44	4.93	13.80	7.17	7.17	2.72	22.56	18.18	3.31	3.20	14.60	17.42
5/7/64	629	F-104	1.94	14.00	1.87	4.38	12.99	6.06	6.90	5.54	5.54	1.84	30.97	11.36	1.57	3.68	10.32	14.24
5/8/64	631	F-104	1.15	14.10	2.02	2.90	8.96	6.82	7.04	6.12	6.12	1.03	17.36	9.29	0.62	2.99	8.77	13.01
5/8/64	635	F-104	1.92	15.61	2.98	4.47	11.20	3.44	5.01	4.35	4.35	1.27	16.06	4.11	0.81	3.31	11.11	8.48
5/9/64	639	F-104	1.32	18.75	2.45	7.28	11.79	8.48	8.16	3.32	5.44	1.74	18.88	12.74	1.78	3.54	13.29	13.59
5/10/64	645	F-104	1.34	24.17	2.64	5.49	13.66	8.72	10.82	6.22	6.22	1.43	30.58	16.32	1.67	5.03	7.88	14.07
5/11/64	652	F-104	1.05	12.15	1.90	3.89	10.75	4.27	7.95	5.72	5.72	1.04	19.10	7.44	1.29	2.82	2.78	11.31
5/11/64	655	F-104	1.39	17.80	1.83	4.62	11.50	6.25	10.68	5.89	5.89	1.54	20.57	8.15	1.54	2.77	10.66	12.59
5/12/64	662	F-104	1.21	14.09	2.11	3.75	15.54	4.78	4.13	7.11	7.11	—	39.84	17.81	1.57	4.30	11.61	13.19
5/14/64	667	F-104	1.80	11.43	3.20	4.55	11.20	5.77	8.77	5.49	6.90	1.62	19.91	11.67	1.74	3.55	12.30	9.55
5/15/64	674	F-104	1.65	13.29	2.74	5.31	12.17	7.88	6.87	4.70	6.44	1.62	18.77	12.61	2.48	3.25	9.42	11.21
5/15/64	675	F-104	1.23	12.10	3.18	2.26	13.17	11.67	8.97	5.23	4.04	0.85	21.06	9.84	1.50	4.08	7.64	20.93
5/16/64	683	F-104	2.01	17.38	3.58	3.05	11.27	6.45	12.76	5.40	3.49	0.82	20.26	10.97	2.30	3.78	12.55	25.74
5/17/64	690	F-104	1.65	14.54	3.83	3.29	22.85	3.74	10.19	5.19	4.76	1.05	20.57	11.37	1.52	6.08	8.24	25.94
5/18/64	697	F-104	1.69	14.31	3.12	2.93	17.94	3.14	9.86	6.10	4.84	0.77	18.76	12.00	1.07	5.03	9.15	19.15
5/19/64	701	F-104	1.28	17.95	2.00	2.88	13.80	4.45	9.88	3.81	4.54	0.72	19.10	15.29	0.81	3.94	17.04	20.44

OVERSHOOT

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1 (SELECTED DAILY FLIGHTS)																			STRAINS		PAGE 7 of 10	
DATE	FLIGHT	TYPE	O.P. (psi)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS			
TRANS-DUCER NO. — STRAIN (micro/inch)																						
5/19/64	705	F-101	1.42	11.92	1.48	2.20	9.35	4.72	7.11	3.81	3.54	0.56	16.71	14.33	0.75	3.07	14.00	17.25				
5/20/64	709	F-101	1.11	12.47	1.09	2.73	15.56	2.81	8.79	4.46	5.15	0.19	19.44	9.29	1.40	5.75	10.04	19.56				
5/20/64	710	F-101	1.16	15.22	1.70	2.47	15.33	3.16	9.20	4.95	4.90	0.63	20.53	9.29	1.67	5.02	11.85	19.56				
5/20/64	714	F-101	1.22	14.46	2.03	3.07	12.18	3.51	7.31	3.17	4.65	0.19	14.20	7.70	1.32	2.67	9.27	11.95				
5/21/64	716	F-101	1.36	8.12	2.24	1.45	14.85	4.39	8.93	7.44	8.70	0.96	23.73	12.57	0.88	9.79	10.48	20.26				
5/22/64	727	F-101	1.97	9.04	1.92	4.63	21.50	4.21	9.76	6.75	9.57	1.06	20.09	11.46	1.38	7.09	11.96	21.36				
5/22/64	728	F-101	1.16	7.35	2.13	4.80	23.52	4.36	11.90	4.89	8.25	0.72	15.51	9.23	1.14	10.35	17.35	22.77				
5/23/64	737	F-101	2.42	9.89	2.43	4.09	24.04	4.70	12.03	9.09	—	—	—	12.30	1.79	8.58	11.76	21.47				
5/24/64	742	F-101	1.11	1.86	1.49	4.09	22.10	4.96	9.47	3.45	6.19	1.12	18.45	11.14	1.14	8.52	11.75	18.58				
5/25/64	747	F-101	1.03	18.77	1.92	3.24	16.46	3.61	11.50	4.76	7.00	1.28	20.87	11.14	1.93	6.80	11.75	19.11				
5/25/64	745	F-101	1.17	16.87	1.25	2.56	12.46	8.47	7.40	4.77	5.14	1.17	4.77	—	1.22	6.77	9.50	20.54				
5/25/64	746	F-101	1.17	12.09	1.05	2.56	13.57	5.72	6.44	5.71	6.90	1.02	18.33	—	1.39	3.66	7.50	18.44				
5/25/64	747	F-101	1.19	8.06	1.78	5.05	7.16	6.27	10.05	8.18	8.79	1.02	26.04	—	1.29	9.47	10.50	18.44				
5/25/64	748	F-101	1.24	7.30	1.46	3.44	19.55	7.82	6.48	6.73	8.52	1.10	23.87	—	1.22	3.09	8.06	10.27				
5/25/64	750	F-101	1.22	6.55	1.57	4.00	24.25	5.40	9.78	6.30	7.44	1.18	23.87	—	1.13	5.66	10.50	20.02				
5/25/64	752	F-101	1.36	5.94	1.67	2.22	19.54	4.93	6.87	6.05	6.22	0.87	17.36	—	1.57	6.64	7.00	19.80				
5/26/64	759	F-101	2.14	9.17	3.41	5.72	18.38	6.50	14.07	9.60	17.43	1.27	24.77	18.56	2.12	9.74	14.42	22.64				
5/26/64	760	F-101	1.44	33.54	2.50	3.95	12.03	3.65	11.91	6.04	10.14	1.47	17.55	11.32	1.65	4.07	13.65	18.06				
5/27/64	761	F-101	1.38	8.15	1.77	3.58	19.39	9.69	7.35	6.18	7.17	0.77	21.86	13.00	1.55	7.09	10.38	15.86				
5/27/64	764	F-101	1.24	9.56	2.32	4.35	21.20	4.10	7.35	7.21	8.11	—	20.40	9.29	1.49	3.22	8.56	15.02				
5/27/64	765	F-101	1.24	6.71	1.77	4.26	16.38	4.96	8.56	6.86	7.98	0.71	21.27	13.80	1.14	9.15	10.89	18.91				
5/27/64	768	F-101	1.26	5.99	1.69	3.75	23.45	3.26	8.56	5.15	7.30	0.60	22.35	12.61	0.88	4.58	10.38	18.91				
5/28/64	772	F-101	1.46	21.48	2.14	3.43	10.82	6.39	10.01	5.80	10.81	1.73	18.78	—	1.58	3.41	9.44	20.42				
5/28/64	775	F-101	1.14	14.46	2.15	2.75	9.02	4.00	7.31	3.89	5.44	0.87	17.04	—	1.14	4.35	9.67	12.97				
5/29/64	780	F-101	1.79	19.19	2.74	3.07	12.85	5.52	9.47	5.88	11.22	1.36	21.57	11.36	1.67	3.83	8.67	18.75				
5/30/64	781	F-101	1.16	26.24	3.83	3.07	19.30	5.43	12.18	3.89	7.19	1.20	23.67	11.73	1.33	4.06	13.00	22.90				
5/30/64	782	F-101	1.04	16.52	2.56	1.87	7.48	4.93	7.17	2.77	6.71	1.12	19.20	9.71	0.97	3.05	7.70	13.46				
5/30/64	785	F-101	1.57	14.09	2.56	2.56	8.04	4.39	8.25	3.36	10.41	1.89	19.47	10.65	2.21	2.88	8.44	17.95				
5/31/64	790	F-101	1.53	32.06	3.70	3.81	12.11	8.02	12.99	4.74	10.46	1.74	23.60	14.12	1.44	4.80	13.07	18.84				
5/31/64	795	F-101	1.33	17.37	3.12	2.77	10.67	4.95	8.44	5.19	8.36	1.46	21.09	10.24	1.67	3.40	8.24	19.17				
5/31/64	798	F-101	1.81	14.37	3.23	3.37	9.99	5.03	8.90	5.88	8.49	1.77	20.21	10.65	1.67	3.00	10.04	21.37				
6/1/64	804	F-101	1.66	18.33	3.62	3.07	10.82	5.35	9.63	7.40	9.80	1.54	22.78	11.73	1.14	—	10.19	21.08				

* NO CLEAR REFERENCE LINE

* NOT MEASURABLE

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1
(SELECTED DAILY FLIGHTS)

STRAINS

PAGE 8 of 10

DATE	FLIGHT TYPE	O.P. (psi)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			TRANSVERSE														
			No. - STRAIN (Micro/In)														
6/2/64	806 F-101	1.21	14.74	2.88	2.79	7.09	4.81	7.75	5.73	7.04	0.86	18.70	9.17	1.72	—	9.47	15.72
6/3/64	806 F-101	1.82	14.29	3.70	3.75	10.67	6.46	9.58	4.76	7.58	1.71	27.70	11.90	1.80	—	10.41	23.99
6/3/64	809 F-101	1.91	16.51	3.20	2.75	14.70	7.36	11.76	5.57	11.44	1.87	24.26	12.72	1.62	—	9.52	26.10
6/4/64	816 F-101	1.61	10.17	1.92	2.86	14.20	5.11	7.85	6.23	8.76	1.12	21.09	11.59	1.59	—	7.84	21.98
6/4/64	818 F-101	1.76	17.61	2.66	4.46	11.25	6.58	9.74	7.67	9.72	1.71	21.09	11.46	1.41	—	17.91	16.69
6/5/64	827 F-101	1.79	17.86	4.01	4.06	11.77	5.75	12.18	6.17	8.47	1.45	24.90	12.70	2.11	—	17.85	29.26
6/6/64	831 F-101	1.69	21.81	4.12	4.07	15.77	7.59	10.83	9.27	9.72	1.72	25.77	15.77	1.95	3.67	9.74	26.22
6/6/64	832 F-101	2.14	16.04	3.76	3.86	16.24	6.87	11.37	5.57	2.60	1.72	24.24	14.29	2.04	5.79	9.86	25.94
6/7/64	840 F-101	2.67	20.99	2.77	3.72	9.84	4.60	7.58	5.06	6.08	1.15	22.06	10.47	1.57	3.44	11.24	21.88
6/7/64	848 F-101	1.47	10.63	2.57	2.90	8.96	5.55	8.79	4.12	4.73	0.82	15.94	10.29	1.50	4.77	8.67	15.87
6/8/64	851 F-101	2.74	72.35	3.69	2.41	15.23	3.19	11.77	5.96	8.86	1.41	30.36	13.14	1.99	6.81	17.91	30.76
6/9/64	857 F-101	1.89	72.61	2.66	3.32	15.11	4.96	14.44	6.70	9.46	1.68	34.07	17.78	1.92	9.19	19.44	28.28
6/10/64	861 F-101	1.87	22.67	2.74	3.86	2.76	8.21	9.20	5.50	7.97	1.24	25.46	12.48	1.81	6.06	7.87	27.19
6/11/64	869 F-101	2.22	21.57	2.70	3.66	17.02	6.04	9.42	8.11	11.29	1.90	32.57	16.47	2.49	9.77	12.07	20.59
6/12/64	881 F-101	2.18	25.62	3.55	3.50	15.68	10.77	11.10	6.51	8.11	1.26	32.57	17.72	1.89	8.08	14.46	36.05
6/13/64	884 F-101	1.87	77.49	3.09	4.94	16.70	6.62	14.17	11.08	10.82	1.52	37.64	17.11	2.26	10.18	22.50	31.85
6/14/64	892 F-101	1.16	22.25	2.40	3.61	13.31	4.52	12.72	4.48	6.69	1.19	26.52	17.37	1.57	6.19	15.88	22.37
6/14/64	897 F-101	1.92	21.75	2.40	4.03	14.29	5.21	17.12	7.44	9.07	1.67	28.41	19.53	2.44	6.58	17.17	27.78
6/15/64	896 F-101	2.61	31.27	2.61	4.11	—	4.74	10.72	5.67	7.81	1.11	28.46	17.07	1.90	6.50	19.52	24.50
6/15/64	898 F-101	1.32	31.77	3.87	4.57	—	4.90	12.70	6.01	8.22	1.75	28.39	17.46	1.77	7.57	17.00	25.55
6/15/64	899 F-101	1.32	18.62	2.82	4.11	—	4.75	9.89	7.50	4.04	1.75	24.58	11.24	1.64	6.74	17.88	22.17
6/16/64	904 F-101	1.49	24.75	2.11	3.83	12.50	4.57	8.02	5.15	8.42	1.47	21.70	10.75	1.48	6.29	9.70	17.51
6/16/64	905 F-101	1.46	27.75	2.47	3.66	11.70	4.65	10.47	5.41	9.57	1.59	27.44	10.42	1.57	6.71	14.68	16.47
6/16/64	906 F-101	1.71	24.50	2.64	3.92	11.00	4.41	11.27	8.75	10.14	1.59	21.70	10.75	1.65	6.60	17.70	18.04
6/17/64	916 F-101	1.81	29.00	1.92	2.96	11.11	4.10	10.95	4.72	8.21	1.84	21.36	12.57	2.44	7.25	9.01	17.90
6/17/64	917 F-101	1.04	8.00	2.17	3.17	14.47	5.44	8.76	6.91	7.74	6.87	17.89	10.16	1.79	5.96	6.12	23.86
6/18/64	915 F-101	1.18	9.17	1.78	1.07	—	5.76	8.02	5.11	6.86	1.07	15.48	12.61	1.22	5.99	9.86	18.44
6/18/64	914 F-101	1.65	24.78	2.97	1.44	—	6.46	10.29	4.69	8.28	1.07	25.00	12.87	1.65	7.83	11.87	27.11
6/19/64	931 F-101	1.71	12.76	1.58	2.87	—	4.54	6.57	7.60	6.08	0.95	20.48	11.76	1.40	5.76	8.56	21.47
6/19/64	932 F-101	1.72	16.48	1.79	3.69	—	4.94	7.57	4.67	8.92	1.75	25.60	13.50	1.84	4.41	9.19	21.48
6/20/64	935 F-101	2.06	24.68	2.95	7.02	—	6.88	12.70	5.21	12.77	1.92	36.01	19.27	2.70	6.45	28.27	17.27
6/20/64	940 F-101	2.19	14.71	2.95	8.80	—	6.65	14.71	7.20	11.64	1.60	30.18	19.70	2.44	7.14	16.15	26.47

STRUCTURAL STRAIN RESPONSE - TEST HOUSE NO. 1
(SELECTED DAILY FLIGHTS)

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STRAINS

REMARKS

STRAIN (Microstrain)

TRANSDUCER NO.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

DATE TIME TYPE C.P. (psi)

7/4/64 1039 F-101 1.76

7/4/64 1044 F-101 1.76

7/5/64 1052 F-101 2.11

7/6/64 1058 F-101 1.92

7/7/64 1068 F-101 2.19

7/8/64 1071 F-101 2.62

7/9/64 1077 F-101 1.98

7/10/64 1083 F-101 1.89

7/11/64 1089 F-101 2.24

7/12/64 1090 F-101 1.96

7/13/64 1096 F-101 2.02

7/14/64 1107 F-101 1.81

7/15/64 1117 F-101 2.49

7/16/64 1124 F-101 2.80

7/17/64 1137 F-101 3.34

7/18/64 1140 F-101 2.42

7/19/64 1148 F-101 2.42

7/20/64 1155 F-101 2.46

7/21/64 1163 F-101 3.15

7/22/64 1174 F-101 2.46

7/23/64 1177 F-101 1.61

7/24/64 1183 F-101 1.51

7/25/64 1195 F-101 1.32

7/26/64 1206 F-101 1.08

7/27/64 1219 F-101 1.41

7/28/64 1230 F-101 1.20

7/29/64 1236 F-101 2.36

7/30/64 1249 F-101 1.32

7/31/64 1251 F-101 1.62

7/32/64 1255 F-101 2.55

7/33/64 1259 F-101 1.41

7/34/64 1264 F-101 1.20

7/35/64 1269 F-101 2.36

7/36/64 1274 F-101 1.32

7/37/64 1279 F-101 1.62

7/38/64 1284 F-101 2.55

7/39/64 1289 F-101 1.41

7/40/64 1294 F-101 1.20

7/41/64 1299 F-101 2.36

7/42/64 1304 F-101 1.32

7/43/64 1309 F-101 1.62

7/44/64 1314 F-101 2.55

7/45/64 1319 F-101 1.41

7/46/64 1324 F-101 1.20

7/47/64 1329 F-101 2.36

7/48/64 1334 F-101 1.32

7/49/64 1339 F-101 1.62

7/50/64 1344 F-101 2.55

7/51/64 1349 F-101 1.41

7/52/64 1354 F-101 1.20

7/53/64 1359 F-101 2.36

7/54/64 1364 F-101 1.32

7/55/64 1369 F-101 1.62

7/56/64 1374 F-101 2.55

7/57/64 1379 F-101 1.41

7/58/64 1384 F-101 1.20

7/59/64 1389 F-101 2.36

7/60/64 1394 F-101 1.32

7/61/64 1399 F-101 1.62

7/62/64 1404 F-101 2.55

7/63/64 1409 F-101 1.41

7/64/64 1414 F-101 1.20

7/65/64 1419 F-101 2.36

7/66/64 1424 F-101 1.32

7/67/64 1429 F-101 1.62

7/68/64 1434 F-101 2.55

7/69/64 1439 F-101 1.41

7/70/64 1444 F-101 1.20

7/71/64 1449 F-101 2.36

7/72/64 1454 F-101 1.32

7/73/64 1459 F-101 1.62

7/74/64 1464 F-101 2.55

7/75/64 1469 F-101 1.41

7/76/64 1474 F-101 1.20

7/77/64 1479 F-101 2.36

7/78/64 1484 F-101 1.32

7/79/64 1489 F-101 1.62

7/80/64 1494 F-101 2.55

7/81/64 1499 F-101 1.41

7/82/64 1504 F-101 1.20

7/83/64 1509 F-101 2.36

7/84/64 1514 F-101 1.32

7/85/64 1519 F-101 1.62

7/86/64 1524 F-101 2.55

7/87/64 1529 F-101 1.41

7/88/64 1534 F-101 1.20

7/89/64 1539 F-101 2.36

7/90/64 1544 F-101 1.32

7/91/64 1549 F-101 1.62

7/92/64 1554 F-101 2.55

7/93/64 1559 F-101 1.41

7/94/64 1564 F-101 1.20

7/95/64 1569 F-101 2.36

7/96/64 1574 F-101 1.32

7/97/64 1579 F-101 1.62

7/98/64 1584 F-101 2.55

7/99/64 1589 F-101 1.41

7/100/64 1594 F-101 1.20

7/101/64 1599 F-101 2.36

7/102/64 1604 F-101 1.32

7/103/64 1609 F-101 1.62

7/104/64 1614 F-101 2.55

7/105/64 1619 F-101 1.41

7/106/64 1624 F-101 1.20

7/107/64 1629 F-101 2.36

7/108/64 1634 F-101 1.32

7/109/64 1639 F-101 1.62

7/110/64 1644 F-101 2.55

7/111/64 1649 F-101 1.41

7/112/64 1654 F-101 1.20

7/113/64 1659 F-101 2.36

7/114/64 1664 F-101 1.32

7/115/64 1669 F-101 1.62

7/116/64 1674 F-101 2.55

7/117/64 1679 F-101 1.41

7/118/64 1684 F-101 1.20

7/119/64 1689 F-101 2.36

7/120/64 1694 F-101 1.32

7/121/64 1699 F-101 1.62

7/122/64 1704 F-101 2.55

7/123/64 1709 F-101 1.41

7/124/64 1714 F-101 1.20

7/125/64 1719 F-101 2.36

7/126/64 1724 F-101 1.32

7/127/64 1729 F-101 1.62

7/128/64 1734 F-101 2.55

7/129/64 1739 F-101 1.41

7/130/64 1744 F-101 1.20

7/131/64 1749 F-101 2.36

7/132/64 1754 F-101 1.32

7/133/64 1759 F-101 1.62

7/134/64 1764 F-101 2.55

7/135/64 1769 F-101 1.41

7/136/64 1774 F-101 1.20

7/137/64 1779 F-101 2.36

7/138/64 1784 F-101 1.32

7/139/64 1789 F-101 1.62

7/140/64 1794 F-101 2.55

7/141/64 1799 F-101 1.41

7/142/64 1804 F-101 1.20

7/143/64 1809 F-101 2.36

7/144/64 1814 F-101 1.32

7/145/64 1819 F-101 1.62

7/146/64 1824 F-101 2.55

7/147/64 1829 F-101 1.41

7/148/64 1834 F-101 1.20

7/149/64 1839 F-101 2.36

7/150/64 1844 F-101 1.32

7/151/64 1849 F-101 1.62

7/152/64 1854 F-101 2.55

7/153/64 1859 F-101 1.41

7/154/64 1864 F-101 1.20

7/155/64 1869 F-101 2.36

7/156/64 1874 F-101 1.32

7/157/64 1879 F-101 1.62

7/158/64 1884 F-101 2.55

7/159/64 1889 F-101 1.41

7/160/64 1894 F-101 1.20

7/161/64 1899 F-101 2.36

7/162/64 1904 F-101 1.32

7/163/64 1909 F-101 1.62

7/164/64 1914 F-101 2.55

7/165/64 1919 F-101 1.41

7/166/64 1924 F-101 1.20

7/167/64 1929 F-101 2.36

7/168/64 1934 F-101 1.32

7/169/64 1939 F-101 1.62

7/170/64 1944 F-101 2.55

7/171/64 1949 F-101 1.41

7/172/64 1954 F-101 1.20

7/173/64 1959 F-101 2.36

7/174/64 1964 F-101 1.32

7/175/64 1969 F-101 1.62

7/176/64 1974 F-101 2.55

7/177/64 1979 F-101 1.41

7/178/64 1984 F-101 1.20

7/179/64 1989 F-101 2.36

7/180/64 1994 F-101 1.32

7/181/64 1999 F-101 1.62

7/182/64 2004 F-101 2.55

7/183/64 2009 F-101 1.41

7/184/64 2014 F-101 1.20

7/185/64 2019 F-101 2.36

7/186/64 2024 F-101 1.32

7/187/64 2029 F-101 1.62

7/188/64 2034 F-101 2.55

7/189/64 2039 F-101 1.41

7/190/64 2044 F-101 1.20

7/191/64 2049 F-101 2.36

7/192/64 2054 F-101 1.32

7/193/64 2059 F-101 1.62

7/194/64 2064 F-101 2.55

7/195/64 2069 F-101 1.41

7/196/64 2074 F-101 1.20

7/197/64 2079 F-101 2.36

7/198/64 2084 F-101 1.32

7/199/64 2089 F-101 1.62

7/200/64 2094 F-101 2.55

7/201/64 2099 F-101 1.41

7/202/64 2104 F-101 1.20

7/203/64 2109 F-101 2.36

7/204/64 2114 F-101 1.32

7/205/64 2119 F-101 1.62

7/206/64 2124 F-101 2.55

7/207/64 2129 F-101 1.41

7/208/64 2134 F-101 1.20

7/209/64 2139 F-101 2.36

7/210/64 2144 F-101 1.32

7/211/64 2149 F-101 1.62

7/212/64 2154 F-101 2.55

7/213/64 2159 F-101 1.41

7/214/64 2164 F-101 1.20

7/215/64 2169 F-101 2.36

7/216/64 2174 F-101 1.32

7/217/64 2179 F-101 1.62

7/218/64 2184 F-101 2.55

7/219/64 2189 F-101 1.41

7/220/64 2194 F-101 1.20

7/221/64 2199 F-101 2.36

7/222/64 2204 F-

STRUCTURAL ACCELERATION RESPONSE - TEST HOUSE NO. 1																			
(SELECTED DAILY FLIGHTS)																			
ACCELERATIONS (g's)																			
PAGE 1 of 9																			
DATE	FLY NO.	TYPE	ACFT.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS
2/5/64	3	F-104	094	0.02	0.02	0.02	0.01	0.02	0.09	0.08	0.12	0.06	0.02	0.04	0.03	0.07	0.13	0.22	* UNREADABLE
2/6/64	7	F-104	117	0.02	0.04	0.05	0.02	0.03	0.18	0.16	0.31	0.15	0.05	0.07	0.07	0.18	0.23	0.24	
2/7/64	10	F-104	130	0.04	0.06	0.06	0.03	0.09											
2/9/64	25	F-104	088	0.02	0.04	0.03	0.01	0.04	0.11	0.06	0.14	0.07	0.04	0.05	0.04	0.09	0.22	0.26	* UNREADABLE
2/9/64	26	F-104	088	0.02	0.04	0.03	0.02	0.03	0.13	0.07	0.21	0.08	0.04	0.05	0.05	0.10	0.20	0.22	
2/10/64	30	F-104	134	0.02	0.06	0.04	0.03	0.04	0.15	0.13	0.20	0.10	0.05	0.06	0.07	0.15	0.26	0.18	
2/10/64	32	F-104	102	0.02	0.05	0.03	0.02	0.04	0.15	0.12	0.19	0.08	0.05	0.06	0.05	0.09	0.25	0.28	* UNREADABLE
2/11/64	39	F-104	119	0.02	0.07	0.04	0.02	0.04	0.16	0.09	0.30	0.13	0.05	0.11	0.06	0.19	0.27	0.18	
2/13/64	49	F-104	177	0.03	0.10	0.08	0.04	0.07	0.14	0.21	0.46	0.15	0.08	0.16	0.14	0.38	0.30	0.33	
2/14/64	59	F-104	131	0.03	0.09	0.06	0.04	0.03	0.12	0.16	0.34	0.15	0.11	0.07	0.09	0.29	0.33	0.24	* CAL. DEFL. MISSING * NO CAL. DEFL. RECORD
2/14/64	61	F-104	103	0.02	0.07	0.02	0.02	0.03	0.10	0.10	0.24	0.14	0.05	0.07	0.06	0.20	0.24	0.19	
2/16/64	70	F-104	114		0.08	0.04	0.02	0.03	0.14	0.12	0.24	0.15	0.04	0.05	0.07	0.15	0.31	0.27	
2/16/64	76	F-104	167		0.07	0.06	0.02	0.06	0.30	0.19	0.38	0.22	0.09	0.09	0.13	0.20	0.41	0.25	* UNREADABLE
2/17/64	79	F-104	142	0.02	0.06	0.03	0.02	0.04	0.18	0.13	0.28	0.13	0.07	0.09	0.08	0.33	0.22	0.17	
2/17/64	82	F-104	123	0.02	0.05	0.04	0.03	0.03	0.18	0.12	0.22	0.24	0.08	0.06	0.08	0.29	0.30	0.19	
2/18/64	87	F-104	188		0.07	0.05	0.06	0.04	0.14	0.15	0.42	0.20	0.05	0.07	0.08	0.15	0.32	0.22	* UNREADABLE
2/18/64	88	F-104	132		0.08	0.04	0.03	0.03	0.15	0.16	0.27	0.16	0.05	0.06	0.09	0.12	0.27	0.24	
2/21/64	112	F-104	179	0.02	0.06	0.04	0.02	0.04	0.08	0.14	0.30	0.09	0.05	0.06	0.08	0.17	0.32	0.25	
2/22/64	119	F-104	136	0.02	0.07	0.06	0.03	0.09	0.14	0.17	0.27	0.13	0.07	0.11	0.08	0.23	0.31	0.22	* UNREADABLE
2/22/64	122	F-104	160	0.05	0.15	0.09	0.05	0.07	0.20	0.25	0.24	0.22	0.11	0.12	0.12	0.22	0.38	0.28	
2/23/64	125	F-104	140	0.02	0.07	0.04	0.05	0.04	0.21	0.18	0.36	0.20	0.04	0.11	0.09	0.22	0.36	0.24	
2/23/64	129	F-104	089	0.02	0.05	0.04	0.03	0.04	0.15	0.13	0.30	0.11	0.05	0.09	0.06	0.19	0.26	0.23	* UNREADABLE
2/24/64	135	F-104	137	0.03	0.07	0.06	0.02	0.06	0.21	0.24	0.34	0.17	0.06	0.12	0.10	0.24	0.35	0.29	
2/24/64	138	F-104	152	0.02	0.05	0.04	0.04	0.05	0.09	0.07	0.11	0.08	0.04	0.09	0.09	0.06	0.13	0.13	
2/26/64	145	F-104	137	0.04	0.10	0.09	0.04	0.09	0.29	0.25	0.50	0.27	0.08	0.13	0.17	0.38	0.47	0.31	* UNREADABLE
2/27/64	150	F-104	093	0.01	0.04	0.04	0.02	0.03	0.15	0.12	0.21	0.13	0.04	0.08	0.07	0.13	0.29	0.24	
2/27/64	152	F-104	147	0.03	0.07	0.06	0.03	0.06	0.23	0.16	0.31	0.21	0.12	0.12	0.10	0.21	0.35	0.29	
2/27/64	153	F-104	149	0.01	0.07	0.06	0.02	0.06	0.24	0.19	0.38	0.22	0.09	0.11	0.09	0.22	0.39	0.24	* UNREADABLE
2/28/64	155	F-104	102	0.05	0.04	0.04	0.03	0.04	0.13	0.13	0.20	0.12	0.06	0.06	0.07	0.11	0.28	0.23	
2/28/64	162	F-104	128	0.02	0.04	0.03	0.02	0.03	0.21	0.14	0.19	0.13	0.04	0.05	0.06	0.12	0.27	0.22	

STRUCTURAL ACCELERATION RESPONSE - TEST HOUSE NO. 1
(SELECTED DAILY FLIGHTS)

ACCELERATIONS (g's)

PAGE 2 of 9

REMARKS

DATE	FLY. NO.	TYPE	0.1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS
ACFT.	GPS																		
2/29/64	166	F-104	1.45	0.04	0.08	0.05	0.05	0.04	0.25	0.18	0.36	0.20	0.06	0.06	0.08	0.23	0.35	0.24	
2/29/64	169	F-104	1.60	0.03	0.10	0.07	0.03	0.06	0.15	0.19	0.48	0.16	0.12	0.11	0.10	0.26	0.23	0.20	
3/1/64	173	F-104	1.15	0.03	0.05	0.06	0.03	0.05	0.15	0.12	0.30	0.19	0.06	0.09	0.09	0.18	0.35	0.28	
3/2/64	181	F-104	1.30	0.02	0.04	0.04	0.02	0.03	0.13	0.10	0.28	0.13	0.02	0.07	0.08	0.14	0.28	0.21	
3/2/64	182	F-104	1.47	0.02	0.04	0.03	0.02	0.03	0.16	0.10	0.26	0.14	0.03	0.06	0.08	0.11	0.27	0.20	*UNREADABLE
3/3/64	188	F-104	1.55	0.01	0.15	0.08	0.04	—	0.21	0.10	—	—	0.09	—	—	—	—	—	
3/3/64	189	F-104	1.05	0.02	0.04	0.03	0.01	0.03	0.08	0.06	0.23	0.13	0.04	0.07	0.07	0.13	0.22	0.22	
3/4/64	192	F-104	0.80	0.03	0.05	0.05	0.03	0.04	0.25	0.16	0.28	0.15	0.05	0.07	0.07	0.16	0.23	0.32	
3/5/64	193	F-104	0.87	0.02	0.03	0.04	0.02	0.04	0.11	0.12	0.20	0.08	0.04	0.07	0.04	0.11	0.24	0.23	
3/5/64	200	F-104	1.24	0.04	0.05	0.04	0.02	0.06	0.13	0.15	0.35	0.20	0.09	—	—	0.25	0.35	0.24	*NOT SURE
3/6/64	207	F-104	1.82	0.10	0.07	0.05	0.04	0.06	0.26	0.24	0.45	0.23	0.12	—	—	0.42	0.30	0.30	*RUN DEFL. VALUE NOT SURE
3/7/64	214	F-104	0.64	0.02	0.04	0.02	0.02	0.02	0.19	0.12	0.21	0.09	0.03	0.03	0.06	0.14	0.20	0.15	
3/9/64	218	F-104	1.13	0.02	0.05	0.06	0.03	0.03	0.11	0.15	—	0.17	0.07	0.11	0.06	0.18	0.24	0.18	*NO RECORD
3/10/64	223	F-104	1.31	0.01	0.06	0.05	0.02	0.03	0.16	0.12	—	0.17	0.05	0.06	0.07	0.16	0.36	0.23	*NO RECORD
3/10/64	226	F-104	1.72	0.04	0.06	0.15	0.03	0.11	0.18	0.14	—	0.24	0.29	0.09	0.09	0.25	0.36	0.31	*NO RECORD
3/11/64	229	F-104	1.42	0.03	0.07	0.07	0.04	0.05	0.18	0.16	0.27	0.14	0.07	0.10	0.10	0.31	0.41	0.28	
3/11/64	233	F-104	1.06	0.04	0.07	0.07	0.04	0.14	0.23	0.24	—	0.31	0.10	—	0.16	—	0.50	—	*NOT RELIABLE
3/12/64	237	F-104	1.29	0.04	0.08	0.07	0.03	0.06	0.23	0.19	0.24	0.22	0.08	0.10	0.11	0.21	0.41	0.28	
3/12/64	239	F-104	1.29	0.02	0.04	0.03	0.03	0.04	0.18	0.13	0.16	0.16	0.07	0.06	0.09	0.16	0.34	0.26	
3/12/64	240	F-104	1.44	0.04	0.06	0.05	0.03	0.04	0.20	0.17	0.24	0.17	0.11	0.07	0.10	0.24	0.40	0.24	
3/13/64	246	F-104	1.80	0.03	0.12	0.05	0.02	0.04	0.15	0.14	0.32	0.20	0.09	0.08	0.08	0.24	0.36	0.23	
3/13/64	251	F-104	0.99	0.02	0.06	0.04	0.03	0.03	0.17	0.11	0.17	0.14	0.07	0.06	0.08	0.14	0.32	0.24	
3/14/64	259	F-104	2.24	0.01	0.05	0.05	0.03	0.04	0.18	0.12	0.17	0.15	0.06	0.06	0.08	0.14	0.57	0.25	
3/15/64	264	F-104	1.28	0.02	0.04	0.03	0.02	0.02	0.14	0.08	0.10	0.12	0.04	0.06	0.06	0.10	0.22	0.21	
3/15/64	265	F-104	1.47	0.04	0.06	0.06	0.05	0.07	0.19	0.20	0.36	0.29	0.14	0.24	0.12	0.35	0.41	0.24	
3/15/64	266	F-104	0.72	0.01	0.03	0.02	0.01	0.03	0.09	0.06	0.10	0.09	0.04	0.06	0.05	0.08	0.17	0.18	
3/16/64	272	F-104	1.58	0.04	0.06	0.03	0.03	0.04	0.18	0.14	0.21	0.19	0.08	0.39	0.09	0.17	0.36	0.25	
3/16/64	273	F-104	0.73	0.02	0.03	0.02	0.02	0.03	0.08	0.05	0.14	0.10	0.05	0.08	0.06	0.11	0.22	0.20	
3/17/64	276	F-104	1.48	0.03	0.09	0.05	0.04	0.06	0.20	0.23	0.21	0.16	0.06	0.09	0.12	0.16	0.39	0.31	
3/17/64	280	F-104	1.07	0.02	0.06	0.04	0.02	0.03	0.17	0.13	0.22	0.20	0.06	0.09	0.07	0.14	0.38	0.25	
3/18/64	286	F-104	1.60	0.01	0.10	0.04	0.05	0.03	0.20	0.23	0.24	0.19	0.11	0.14	0.08	0.24	0.46	0.25	

STRUCTURAL ACCELERATION RESPONSE - TEST HOUSE NO. 1										ACCELERATIONS (g's)					REMARKS				
(SELECTED DAILY FLIGHTS)										ACCEL. TRANSDUCER NO.									
DATE	FLY NO.	TYPE	O.P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
			CFPS																
3/18/64	287	F-104	146	0.02	0.05	0.03	0.02	0.03	0.15	0.13	0.17	0.18	0.05	0.06	0.05	0.20	0.37	0.22	*NO RECORD
3/20/64	294	F-104	151	0.02	0.07	0.04	0.03	0.07	0.19	0.24	—	0.18	0.08	0.07	0.05	0.19	0.14	0.23	*NO RECORD
3/23/64	295	F-104	090	0.02	0.04	0.04	0.03	0.04	0.12	0.16	—	0.13	0.03	0.05	0.04	0.14	0.24	0.20	*NO RECORD
3/23/64	301	F-104	210	0.04	0.12	0.05	0.02	0.05	0.89	0.18	0.30	0.25	0.06	0.09	0.10	—	0.45	0.29	*NO RECORD
3/23/64	305	F-104	151	0.03	0.07	0.05	0.04	0.05	0.19	0.21	0.31	0.26	0.06	0.15	0.14	—	0.44	0.29	*NO RECORD
3/23/64	306	F-104	151	0.03	0.05	0.04	0.02	0.05	0.21	0.13	0.19	0.20	0.05	0.11	0.10	—	0.31	0.20	*NO RECORD
3/23/64	314	B-58	165	0.03	0.15	0.03	0.03	0.05	0.19	0.10	0.24	0.17	0.07	0.09	0.08	—	0.21	0.22	*NO RECORD
3/24/64	319	F-104	136	—	0.06	0.03	0.03	0.05	0.25	0.18	0.23	0.18	0.07	0.07	0.14	—	0.43	0.27	*NO RECORD
3/24/64	320	F-104	134	—	0.05	0.05	0.03	0.07	0.21	0.13	0.24	0.19	0.09	0.10	0.09	—	0.41	0.23	*NO RECORD
3/25/64	327	B-58	132	0.03	0.07	0.05	0.03	0.03	0.12	0.12	0.37	0.15	0.04	0.14	0.08	—	0.27	0.23	*NO RECORD
3/25/64	328	F-104	125	0.02	0.04	0.03	0.02	0.04	0.13	0.17	0.17	0.17	0.05	0.05	0.06	—	0.32	0.22	*NO RECORD
3/26/64	335	B-58	238	0.04	0.08	0.08	0.04	0.05	0.14	0.17	0.21	0.23	0.07	0.12	0.08	0.25	0.41	0.26	
3/27/64	343	B-58	145	0.03	0.16	0.02	0.03	0.07	0.17	0.15	0.26	0.20	0.07	0.14	0.06	0.18	0.27	0.23	
3/29/64	349	F-104	128	0.02	0.06	0.04	0.03	0.04	0.16	0.16	0.21	0.16	0.07	0.04	0.07	0.18	0.36	0.26	
3/29/64	362	F-104	175	0.03	0.06	0.05	0.05	0.07	0.19	0.26	0.20	0.21	0.10	0.15	0.14	0.20	0.33	0.20	*ACCELEROMETER 110.12 OUT
3/31/64	365	F-104	124	0.02	0.06	0.03	0.02	0.04	0.18	0.14	0.19	0.17	0.07	0.08	—	0.19	0.36	0.24	
4/2/64	383	F-104	117	0.04	0.04	0.04	0.02	0.03	0.14	0.14	0.39	0.24	0.21	0.11	0.15	0.14	0.27	0.17	
4/3/64	384	F-104	156	0.05	0.08	0.08	0.04	0.07	0.23	0.28	0.31	0.28	0.13	0.14	0.12	0.27	0.47	0.41	
4/5/64	399	F-104	226	0.04	0.10	0.07	0.03	0.06	0.25	0.16	0.38	0.26	0.07	—	—	0.36	0.37	0.28	*RUN DEF. SMEARED
4/6/64	401	F-104	128	0.04	0.06	0.06	0.03	0.07	0.16	0.16	—	0.19	—	—	0.19	—	0.39	0.25	*NOT RELIABLE
4/6/64	403	F-104	132	0.05	0.04	0.03	0.04	0.03	0.17	0.10	0.19	0.18	0.16	0.07	0.09	0.19	0.40	0.25	
4/7/64	415	F-104	170	0.06	0.08	0.04	0.05	0.04	0.19	0.18	0.26	0.21	0.19	0.27	0.09	0.26	0.46	0.23	
4/8/64	418	F-104	126	0.03	0.07	0.05	0.04	0.07	0.21	0.22	0.21	0.22	0.09	—	0.11	0.25	0.40	0.21	*NOT RELIABLE
4/8/64	420	F-104	122	0.03	0.09	0.06	0.03	0.04	0.21	0.15	—	0.20	0.04	0.10	—	0.25	0.34	0.29	*NO RECORD
4/8/64	422	F-104	157	0.03	0.10	0.08	0.05	0.04	0.20	0.16	0.32	0.34	0.08	0.11	0.21	0.18	0.37	0.35	
4/9/64	426	F-104	116	0.04	0.09	0.09	0.04	0.07	0.29	0.24	0.18	0.22	0.09	0.07	0.11	0.25	0.41	0.27	
4/11/64	438	F-104	175	0.05	0.12	0.07	0.05	0.04	0.36	0.30	0.41	0.19	0.12	0.19	0.23	0.33	0.60	0.50	
4/11/64	440	F-104	123	0.02	0.07	0.03	0.03	0.03	0.32	0.12	0.19	0.15	0.07	0.07	0.07	0.16	0.26	0.40	
4/11/64	441	F-104	226	0.03	0.07	0.04	0.03	0.05	0.21	0.14	0.27	0.18	0.04	0.10	0.07	0.21	0.60	0.50	

STRUCTURAL ACCELERATION RESPONSE - TEST HOUSE NO. 1																			PAGE 4 of 9	
(SELECTED DAILY FLIGHTS)																			ACCELERATIONS (g's)	
DATE	FLY. NO.	TYPE	ACFT.	ACCEL. TRANSDUCER NO.															REMARKS	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
4/12/64	447	F-104	414	0.02	0.05	0.03	0.04	0.04	0.19	0.21	0.22	0.19	0.12	0.07	0.09	0.20	0.34	—	* NO RECORD	
4/12/64	451	F-104	414	0.02	0.04	0.03	0.04	0.03	0.08	0.13	0.18	0.18	0.08	0.08	0.09	0.16	0.32	—	* NO RECORD	
4/12/64	452	F-104	414	0.02	0.03	0.03	0.03	0.03	0.20	0.16	0.15	0.21	0.07	—	0.09	0.18	0.35	—	* NO RECORD	
4/13/64	459	F-104	414	0.03	0.06	0.04	0.05	0.05	0.18	0.19	0.24	0.22	0.19	0.15	0.06	0.18	0.48	0.32	UNREADABLE	
4/13/64	461	F-104	414	0.03	0.05	0.02	0.05	0.04	0.16	0.19	0.19	0.20	0.08	—	0.09	0.16	0.35	0.39	UNREADABLE	
4/14/64	468	F-104	414	0.01	0.07	0.03	0.05	0.04	0.20	0.12	0.26	0.20	0.06	0.14	0.11	0.18	0.34	0.28	UNREADABLE	
4/15/64	473	F-104	414	0.02	0.06	0.05	0.04	0.04	0.12	0.12	0.19	0.15	0.06	0.12	0.09	0.16	0.31	0.29	UNREADABLE	
4/16/64	482	F-104	414	0.02	0.06	0.04	0.05	0.05	0.16	0.14	0.24	0.17	0.04	0.08	0.07	0.18	0.32	0.29	UNREADABLE	
4/17/64	486	F-104	414	0.01	0.03	0.03	0.03	0.03	0.19	0.12	0.21	0.15	0.04	0.08	0.09	0.16	0.30	0.28	UNREADABLE	
4/18/64	494	F-104	414	0.01	0.02	0.01	0.01	0.01	0.07	—	0.07	0.07	0.02	0.02	0.02	0.05	0.14	0.15	UNREADABLE	
4/18/64	495	F-104	414	0.02	0.03	0.03	0.02	0.02	0.16	—	0.13	0.08	0.03	0.07	0.06	0.09	0.24	0.26	UNREADABLE	
4/19/64	503	F-104	414	0.03	0.04	0.04	0.03	0.03	0.04	—	0.18	0.20	0.07	0.09	0.10	0.14	0.35	0.24	* NO RECORD	
4/20/64	506	F-104	414	0.03	0.04	0.04	0.03	0.03	0.15	—	0.17	0.11	0.08	0.08	0.09	0.15	0.34	0.19	* NO RECORD	
4/21/64	516	F-104	414	0.01	0.04	0.05	0.04	0.04	0.20	—	0.14	0.18	—	—	—	—	0.32	0.20	* NO RECORD	
4/23/64	529	F-104	414	0.03	0.04	0.02	0.02	0.03	0.26	0.16	0.14	0.17	0.04	0.08	0.07	0.11	0.31	0.24	UNREADABLE	
4/23/64	536	F-104	414	0.02	0.04	0.04	0.02	0.05	0.16	0.04	0.19	0.16	0.06	0.09	0.08	0.15	0.40	0.29	UNREADABLE	
4/25/64	539	F-104	414	0.02	0.05	0.02	0.03	0.03	0.19	0.03	0.27	0.21	0.05	0.08	0.12	0.25	0.45	0.31	UNREADABLE	
4/25/64	540	F-104	414	0.04	0.08	0.04	0.03	0.04	0.26	0.04	0.23	0.22	0.05	0.10	0.16	0.18	0.52	0.32	UNREADABLE	
4/26/64	544	F-104	414	0.04	0.07	0.04	0.04	0.05	0.22	—	0.25	0.19	0.06	0.09	0.08	0.21	0.38	0.20	* NO RECORD	
4/27/64	553	F-104	414	0.05	0.07	0.04	0.04	0.12	0.38	0.04	0.32	0.32	0.08	0.13	0.17	0.29	0.52	0.30	TRAIN PASSING DURING FLIGHT	
4/29/64	577	F-104	414	0.02	0.11	0.13	0.05	0.09	0.67	0.11	0.23	0.41	0.06	0.11	0.09	0.28	0.49	0.47	UNREADABLE	
5/1/64	578	F-104	414	0.03	0.08	0.04	0.05	0.05	0.25	0.08	0.13	0.20	0.09	0.12	0.11	0.24	0.50	0.30	* NO RECORD	
5/2/64	590	F-104	414	0.03	0.06	0.04	0.03	0.17	0.19	—	0.23	0.16	0.05	0.09	0.11	0.18	0.31	0.25	UNREADABLE	
5/3/64	595	F-104	414	0.05	0.06	0.10	0.03	0.08	0.21	—	0.32	0.28	0.07	0.12	0.11	0.25	0.39	0.28	* NO RECORD	
5/3/64	598	F-104	414	0.02	0.04	0.09	0.03	0.13	0.20	—	0.21	0.20	0.05	0.16	0.10	0.15	0.35	0.29	* NO RECORD	
5/16/64	602	F-104	414	0.02	0.17	0.06	0.04	0.05	0.27	—	0.35	0.28	0.07	0.09	0.09	0.25	0.45	0.27	* NO RECORD	
5/16/64	613	F-104	414	0.02	0.05	0.03	0.02	0.02	0.10	0.03	0.15	0.15	0.04	0.07	0.07	0.21	0.29	0.23	* NO RECORD	
5/16/64	620	F-104	414	0.03	0.04	0.04	0.02	0.04	0.19	—	0.24	0.24	0.05	0.10	0.04	0.17	0.45	0.24	UNREADABLE	
5/17/64	628	F-104	414	0.04	0.10	0.06	0.04	0.09	0.32	0.07	0.24	0.27	0.10	0.26	0.07	0.27	0.30	0.25	UNREADABLE	

STRUCTURAL ACCELERATION RESPONSE - TEST HOUSE NO. 1														ACCELERATIONS (g's)					PAGE 5 of 9	
(SELECTED DAILY FLIGHTS)																				
DATE	FLY. NO.	TYPE	O.P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS	
			(g's)																	
5/17/64	629	F-104	1.94	0.04	0.05	0.05	0.03	0.04	0.24	0.05	0.13	0.08	0.11	0.12	0.09	0.18	0.38	0.30		
5/18/64	631	F-104	1.04	0.03	0.04	0.04	0.02	0.14	0.14	0.04	0.19	0.14	0.05	0.06	0.08	0.12	0.26	0.24		
5/18/64	635	F-104	1.92	0.03	0.03	0.03	0.03	0.04	0.12	0.03	0.08	0.17	0.05	0.07	0.08	0.19	0.38	0.21		
5/19/64	639	F-104	1.32	0.04	0.05	0.05	0.03	0.05	0.13	0.03	0.19	0.28	0.05	0.12	0.10	0.31	0.40	0.24		
5/19/64	648	F-104	1.34	0.02	0.06	0.05	0.03	0.03	0.13	0.04	0.14	0.14	0.05	0.04	0.07	0.10	0.35	0.27		
5/19/64	652	F-104	1.05	0.01	0.04	0.04	0.03	0.05	0.13	0.04	0.16	0.16	0.08	0.07	0.09	0.23	0.33	0.21		
5/19/64	655	F-104	1.39	0.01	0.06	0.04	0.03	0.04	0.17	0.04	0.19	0.21	0.06	0.12	0.09	0.18	0.45	0.25		
5/19/64	662	F-104	1.21	0.03	0.06	0.07	0.04	0.05	0.19	0.04	0.23	0.17	0.12	0.15	0.18	0.22	0.37	0.32		
5/19/64	667	F-104	1.80	0.03	0.06	0.04	0.04	0.04	0.16	0.05	0.26	0.22	0.10	0.15	0.11	0.21	0.42	0.22		
5/15/64	674	F-104	1.65	0.05	0.09	0.05	0.03	0.05	0.16	0.04	0.38	0.22	0.06	0.09	—	0.24	0.24	0.25	* NO RECORD	
5/15/64	675	F-101	1.23	0.03	0.04	0.03	0.02	0.04	0.24	0.03	0.16	0.11	0.06	0.09	—	0.31	0.31	0.29	* NO RECORD	
5/16/64	683	F-101	2.01	0.06	0.09	0.05	0.03	0.04	0.18	0.05	0.28	0.16	0.07	0.09	0.17	0.20	0.26	0.27		
5/17/64	690	F-101	1.65	0.00	0.04	0.03	0.01	0.03	0.19	0.03	0.24	0.11	0.05	0.13	0.17	0.18	0.27	0.30		
5/18/64	693	F-101	1.69	0.00	0.10	0.04	0.04	0.04	0.16	—	0.06	0.15	0.10	0.06	0.16	0.18	0.35	0.28	* NO RECORD	
5/19/64	701	F-101	1.28	0.01	0.05	0.03	0.03	0.02	0.13	0.13	0.18	0.10	0.03	0.10	0.07	0.16	0.37	0.26		
5/19/64	705	F-101	1.42	0.01	0.03	0.03	0.02	0.01	0.14	0.01	0.11	0.06	0.03	0.05	0.05	0.13	0.22	0.19		
5/20/64	709	F-101	1.11	0.04	0.04	0.02	0.01	0.02	0.11	0.04	0.20	0.13	0.05	0.09	0.06	0.17	0.31	0.26		
5/20/64	714	F-101	1.22	0.02	0.04	0.02	0.04	0.02	0.08	0.12	0.12	0.09	0.03	0.08	0.05	0.15	0.27	0.19		
5/21/64	716	F-101	1.36	0.02	0.07	0.03	0.02	0.03	0.13	0.19	0.36	0.09	0.07	0.05	0.06	0.22	0.37	0.24		
5/22/64	727	F-101	1.97	0.01	0.06	0.02	0.01	0.02	0.09	0.10	0.14	0.07	0.03	0.06	0.05	0.13	0.31	0.29	ALL DOORS OPEN	
5/22/64	728	F-101	1.16	0.01	0.06	0.12	0.01	0.02	0.09	0.10	0.14	0.07	0.03	0.06	0.05	0.13	0.21	0.29	ALL DOORS OPEN	
5/23/64	737	F-101	2.42	0.01	0.05	0.02	0.02	0.02	0.13	0.09	0.14	0.10	0.05	0.05	0.05	0.14	0.33	0.30	ALL DOORS AND WINDOWS OPEN	
5/24/64	742	F-101	1.11	—	—	—	0.01	0.01	0.10	0.07	0.11	0.06	0.01	0.04	0.04	0.16	0.24	0.22	* NO RECORD	
5/24/64	743	F-101	1.63	—	—	—	0.03	0.05	0.14	0.21	0.28	0.33	0.12	0.12	0.08	0.12	0.34	0.26	* NO RECORD	
5/25/64	745	F-101	1.17	0.02	0.04	0.04	0.02	0.03	0.11	0.15	0.17	0.09	0.05	0.06	0.04	0.19	0.31	0.21		
5/25/64	746	F-101	1.17	0.02	0.04	0.02	0.03	0.03	0.10	0.11	0.14	0.07	0.05	0.06	0.05	0.18	0.27	0.21	* NOT RELIABLE	
5/25/64	747	F-101	1.29	0.02	0.04	0.03	0.02	0.02	0.13	0.14	0.21	0.10	0.03	0.06	0.05	0.21	0.27	0.26		
5/25/64	748	9-58	1.24	0.01	0.05	0.03	0.03	0.03	0.13	0.15	0.22	0.10	0.06	0.08	0.06	0.15	0.35	0.19		
5/25/64	750	F-101	1.22	0.02	0.02	0.03	0.02	0.02	0.12	0.17	0.20	0.07	0.03	0.06	0.04	0.20	0.35	0.31		
5/25/64	752	F-101	1.36	0.04	0.04	0.04	0.02	0.04	0.16	0.22	0.35	0.14	0.08	0.10	0.07	0.21	0.49	0.38		

STRUCTURAL ACCELERATION RESPONSE - TEST HOUSE NO. 1																	PAGE 6 of 9		
ACCELERATIONS (g's)																			
ACCEL TRANSDUCER NO.																			
DATE	FLYING TYPE	O.P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS	
		ACFT.																	
5/16/64	756	B-58	1.44	0.03	0.05	0.03	0.05	0.02	0.15	0.19	0.28	0.13	0.05	0.03	0.08	0.21	0.34	0.22	DOORS & WINDOWS OPEN DOORS & WINDOWS OPEN
5/16/64	759	F-101	2.14	0.03	0.09	0.04	0.02	0.04	0.21	0.15	0.27	0.15	0.06	0.10	0.08	0.28	0.47	0.29	
5/17/64	761	F-101	1.58	0.04	0.05	0.03	0.02	0.05	0.12	0.21	0.21	0.11	0.04	0.13	0.06	0.22	0.42	0.22	
5/17/64	764	B-58	1.24	0.02	0.04	0.02	0.03	0.03	0.11	0.11	0.18	0.10	0.03	0.05	0.04	0.14	0.26	0.20	
5/17/64	765	F-101	1.24	0.03	0.03	0.03	0.01	0.01	0.12	0.08	0.12	0.06	0.02	0.04	0.04	0.13	0.29	0.25	
5/17/64	768	F-101	1.26	0.01	0.03	0.02	0.01	0.01	0.11	0.09	0.08	0.05	0.02	0.03	0.03	0.10	0.23	0.20	
5/18/64	772	B-58	1.46	0.03	0.04	0.04	0.02	0.02	0.14	0.13	0.25	0.13	0.04	0.08	0.05	0.20	0.28	0.20	
5/18/64	775	F-101	1.14	0.02	0.03	0.03	0.02	0.02	0.10	0.10	0.13	0.07	0.02	0.05	0.03	0.14	0.30	0.19	
5/19/64	780	F-101	1.79	0.02	0.04	0.02	0.04	0.02	0.13	0.07	0.17	0.08	0.04	0.06	0.05	0.14	0.23	0.23	
5/19/64	781	F-101	1.16	0.02	0.03	0.03	0.04	0.02	0.11	0.11	0.17	0.10	0.04	0.04	0.04	0.17	0.24	0.29	
5/30/64	782	F-101	1.04	0.02	0.02	0.02	0.04	0.02	0.08	0.08	0.11	0.07	0.02	0.03	0.03	0.13	0.20	0.20	
5/31/64	785	F-101	1.57	0.04	0.04	0.03	0.03	0.04	0.12	0.20	0.29	0.16	0.05	0.10	0.06	0.29	0.32	0.33	
5/31/64	790	F-101	1.53	0.01	0.04	0.02	0.01	0.02	0.13	0.08	0.15	0.12	0.04	0.02	0.04	0.14	0.18	0.29	
6/11/64	795	F-101	1.39	0.02	0.02	0.04	0.02	0.03	0.13	0.15	0.18	0.13	0.06	0.07	0.07	0.35	0.57	0.26	
6/11/64	798	F-101	1.81	0.03	0.06	0.04	0.03	0.04	0.17	0.12	0.27	0.15	0.04	0.06	0.05	0.30	0.28	0.29	
6/12/64	804	F-101	1.66	0.03	0.05	0.04	0.03	0.04	0.14	0.15	0.21	0.14	0.04	0.07	0.06	0.19	0.33	0.31	
6/12/64	806	F-101	1.21	0.02	0.04	0.03	0.02	0.03	0.10	0.13	0.16	0.09	0.04	0.05	0.05	0.14	0.26	0.24	
6/13/64	808	F-101	1.82	0.02	0.04	0.03	0.04	0.04	0.18	0.17	0.26	0.12	0.06	0.08	0.06	0.32	0.35	0.21	
6/13/64	809	F-101	1.91	0.03	0.06	0.04	0.07	0.06	0.13	0.23	0.25	0.13	0.08	0.07	0.09	0.36	0.45	0.30	
6/14/64	816	F-101	1.61	0.04	0.04	0.03	0.02	0.02	0.10	0.11	0.17	0.13	0.03	0.06	0.08	0.19	0.29	0.29	
6/14/64	818	F-101	1.36	0.02	0.04	0.02	0.03	0.02	0.11	0.10	0.15	0.09	0.03	0.05	0.05	0.13	0.29	0.32	
6/15/64	827	F-101	1.79	0.03	0.04	0.04	0.02	0.03	0.13	0.16	0.20	0.11	0.03	0.06	0.09	0.24	0.32	0.37	
6/16/64	831	F-101	1.69	0.03	0.05	0.04	0.04	0.04	0.14	0.17	0.24	0.14	0.04	0.14	0.08	0.29	0.35	0.38	NOT RELIABLE
6/16/64	832	F-101	2.14	0.06	0.11	0.08	0.03	0.07	0.18	0.24	0.41	0.23	0.14	0.33	0.10	0.37	0.58	0.41	
6/17/64	838	F-101	1.43	0.04	0.04	0.04	0.02	0.03	0.10	0.15	0.19	0.13	0.06	0.06	0.06	0.23	0.23	0.23	UNRELIABLE
6/17/64	840	F-101	2.67	0.06	0.06	0.07	0.04	0.06	0.14	0.20	0.35	0.18	0.10	0.21	0.09	—	—	0.34	
6/18/64	847	F-101	2.14	0.04	0.10	0.06	0.05	0.05	0.15	0.25	0.38	0.17	0.06	—	—	—	—	0.44	UNRELIABLE
6/19/64	857	F-101	1.84	0.03	0.06	0.05	0.04	0.04	0.15	0.15	0.30	0.18	0.05	0.13	0.08	0.30	0.32	0.47	
6/19/64	861	F-101	1.83	0.06	0.06	0.04	0.03	0.03	0.13	0.21	0.20	0.12	0.04	0.07	0.06	0.24	0.36	0.41	UNRELIABLE
6/19/64	869	F-101	2.22	0.04	0.08	0.06	0.04	0.05	0.18	0.25	0.31	0.21	0.08	—	—	—	—	0.45	
6/19/64	881	F-101	2.18	0.07	0.09	0.10	0.03	0.04	0.16	0.24	0.11	0.21	0.11	0.07	0.09	0.36	0.47	0.40	
6/19/64	884	F-101	1.87	0.02	0.05	0.05	0.06	0.05	0.17	0.21	0.25	0.24	0.18	0.16	0.08	0.31	0.34	0.29	

STRUCTURAL ACCELERATION RESPONSE - TEST HOUSE NO. 1 (SELECTED DAILY FLIGHTS)														ACCELERATIONS (g's)					REMARKS
DATE		FLYING TYPE	O.P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
		ACFT	q, ft/s ²	ACCEL. TRANSDUCER 112.															
6/14/64	842	F-101	116	0.03	0.04	0.03	0.05	0.03	0.11	0.21	0.20	0.10	0.08	0.06	0.05	0.22	0.35	0.40	*NO RECORD *UNRECORDED
6/15/64	846	F-101	143	0.03	0.17	0.05	0.05	0.04	0.14	0.23	0.59	0.15	0.07	0.10	—	0.30	0.34	0.40	
6/15/64	849	F-101	132	0.01	0.02	0.15	0.02	0.04	0.12	0.20	—	—	—	—	—	—	—	0.37	*NO RECORD *UNRECORDED
6/16/64	904	F-101	149	0.01	0.06	0.07	0.03	0.04	0.14	0.24	0.27	0.15	0.06	0.14	0.06	0.25	0.41	0.28	
6/16/64	905	F-101	146	0.00	0.05	0.04	0.02	0.03	0.13	0.28	0.23	0.15	0.06	0.10	0.05	0.30	0.34	0.30	*NO RECORD *UNRECORDED
6/16/64	906	F-101	171	0.02	0.06	0.04	0.02	0.03	0.14	0.19	0.23	0.14	0.05	0.09	0.05	0.32	0.32	0.32	
6/17/64	916	F-101	181	0.05	0.06	0.04	0.04	0.04	0.23	0.29	0.26	0.17	0.09	0.09	0.08	0.50	0.41	0.41	*NO RECORD *UNRECORDED
6/17/64	917	F-101	109	0.01	0.04	0.03	0.01	0.02	0.12	0.18	0.18	0.10	0.05	0.07	0.05	0.22	0.39	0.36	
6/18/64	924	F-101	165	0.01	0.07	0.05	0.06	0.05	0.14	0.16	0.26	0.14	0.04	0.15	0.07	0.25	0.35	0.37	*NO RECORD *UNRECORDED
6/18/64	925	F-101	118	0.01	0.04	0.02	0.01	0.02	0.11	0.13	0.13	0.11	0.04	0.07	0.05	0.15	0.29	0.29	
6/19/64	931	F-101	131	0.05	0.05	0.05	0.04	0.04	0.24	0.25	0.29	0.15	0.12	0.13	0.08	0.22	0.44	0.37	*NO RECORD *UNRECORDED
6/19/64	932	F-101	172	0.02	0.06	0.06	0.03	0.06	0.19	0.16	0.16	0.46	0.11	0.21	0.07	0.27	0.39	0.50	
6/20/64	938	F-101	206	0.01	0.08	0.05	0.05	0.06	0.21	0.18	0.26	0.25	0.05	0.17	0.16	0.20	0.44	0.46	*NO RECORD *UNRECORDED
6/20/64	940	F-101	219	0.03	0.10	0.06	0.03	0.05	0.22	0.30	0.30	0.21	0.08	0.09	0.09	0.24	0.42	0.54	
6/21/64	942	F-101	176	0.05	0.08	0.06	0.04	0.06	0.24	0.31	0.37	0.20	0.09	0.09	0.07	0.29	0.45	0.48	*NO RECORD *UNRECORDED
6/21/64	943	F-101	224	0.01	0.06	0.05	0.04	0.03	0.15	0.10	0.23	0.13	0.04	0.13	0.07	0.19	0.43	0.53	
6/21/64	944	F-101	192	0.07	0.07	0.06	0.03	0.03	0.17	0.24	0.35	0.15	0.05	0.09	0.07	0.34	0.47	0.38	*NO RECORD *UNRECORDED
6/21/64	949	F-101	147	0.01	0.07	0.04	0.04	0.08	0.12	0.24	0.28	0.15	0.09	0.18	0.07	0.19	0.35	0.39	
6/22/64	950	F-101	164	0.01	0.07	0.04	0.04	0.04	0.14	0.28	0.28	0.19	0.12	0.16	0.08	0.24	0.46	0.35	*NO RECORD *UNRECORDED
6/22/64	952	F-101	164	0.01	0.05	0.06	0.04	0.05	0.19	0.20	0.26	0.18	0.06	0.12	0.08	0.20	0.42	0.40	
6/22/64	953	F-101	158	0.01	0.04	0.03	0.05	0.03	0.12	0.13	0.23	0.12	0.05	0.06	0.08	0.19	0.32	0.21	*NO RECORD *UNRECORDED
6/23/64	960	F-101	212	0.00	0.06	0.03	0.04	0.04	0.13	0.12	0.21	0.17	0.05	0.09	0.06	0.24	0.34	0.40	
6/23/64	961	F-101	153	0.00	0.03	0.03	0.02	0.04	0.12	0.11	0.16	0.18	0.04	0.06	0.04	0.14	0.36	0.34	*NO RECORD *UNRECORDED
6/23/64	962	F-101	216	0.00	0.06	0.05	0.03	0.04	0.13	0.14	0.28	0.14	0.05	0.11	0.07	0.23	0.35	0.37	
6/24/64	963	F-101	168	0.02	0.05	0.07	0.04	0.04	0.14	0.19	0.22	0.12	0.06	0.10	0.06	0.21	0.67	0.35	*NO RECORD *UNRECORDED
6/24/64	968	F-101	135	0.01	0.04	0.03	0.01	0.02	0.08	0.07	0.13	0.07	0.02	0.08	0.04	0.16	0.18	0.27	
6/24/64	969	F-101	200	0.02	0.06	0.05	0.03	0.05	0.18	0.19	0.23	0.12	0.07	0.11	0.08	0.21	0.28	0.36	*NO RECORD *UNRECORDED
6/24/64	970	F-101	308	0.02	0.08	0.05	0.05	0.05	0.26	0.23	0.31	0.21	0.10	0.12	0.08	0.18	0.45	0.48	
6/25/64	973	F-101	153	0.01	0.04	0.03	0.02	0.02	0.12	0.11	0.17	0.09	0.03	0.06	0.05	0.13	0.27	0.34	*NO RECORD *UNRECORDED
6/25/64	977	F-101	296	0.05	0.07	0.03	0.02	0.04	0.11	0.12	0.18	0.15	0.05	0.09	0.12	0.19	0.33	0.33	
6/26/64	980	F-101	164	0.01	0.09	0.03	0.04	0.03	0.11	0.18	0.16	0.14	0.03	0.10	0.05	0.21	0.32	0.36	*NO RECORD *UNRECORDED
6/26/64	980	F-101	164	0.01	0.09	0.03	0.04	0.03	0.11	0.18	0.16	0.14	0.03	0.10	0.05	0.21	0.32	0.36	

STRUCTURAL ACCELERATION RESPONSE - TEST HOUSE NO. 1											
(SELECTED DAILY FLIGHTS)											
ACCELERATIONS (g's)											
REMARKS											
ACCEL TRANSDUCER NO.											
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15											
O.P. 193 204 195 146 186 118 153 220 214 187 216 166 176 192 219 262 198 189 224 196 202 181 249 280 334 240 242											
DATE FLT. NO. TYPE ACFT. 6/24/64 981 F-101 6/26/64 982 F-101 6/27/64 985 F-101 6/27/64 991 F-101 6/28/64 993 F-101 6/28/64 998 F-101 6/29/64 1001 F-101 6/29/64 1005 F-101 6/30/64 1009 F-101 7/1/64 1018 F-101 7/1/64 1019 F-101 7/2/64 1026 F-101 7/6/64 1039 F-101 7/14/64 1046 F-101 7/16/64 1058 F-101 7/17/64 1068 F-101 7/18/64 1071 F-101 7/19/64 1077 F-101 7/19/64 1083 F-101 7/19/64 1089 F-101 7/19/64 1090 F-101 7/19/64 1096 F-101 7/12/64 1103 F-101 7/13/64 1117 F-101 7/14/64 1124 F-101 7/15/64 1133 F-101 7/16/64 1140 F-101 7/17/64 1148 F-101											
0.03 0.06 0.06 0.05 0.05 0.15 0.19 0.15 0.09 0.04 0.12 0.07 0.21 0.33 0.40											
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0.04 0.10 0.05 0.07 0.15 0.42 0.26 0.13 0.08 0.11 0.08 0.23 0.53 0.38											
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0.04 0.04 0.04 0.04 0.04 0.88 0.05 0.16 0.06 0.18 0.30 0.38 0.31											
0.07 0.07 0.16 0.18 0.30 0.16 0.14 0.41 0.04 0.04 0.28 0.34											
0.05 0.05 0.05 0.05 0.05 0.10 0.14 0.41 0.04 0.04 0.28 0.34											
0.04 0.04 0.04 0.04 0.04 0.13 0.22 0.94 0.08 0.13 0.11 0.39 0.33											
0.06 0.06 0.06 0.06 0.06 0.19 0.20 0.55 0.06 0.06 0.07 0.37 0.35											
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0.02 0.02 0.02 0.02 0.02 0.17 0.15 0.32 0.07 0.07 0.34 0.38											
0.02 0.02 0.02 0.02 0.02 0.13 0.18 0.55 0.07 0.07 0.32 0.42											
0.05 0.05 0.05 0.05 0.05 0.19 0.18 0.76 0.12 0.12 0.36 0.41											
0.06 0.06 0.06 0.06 0.06 0.20 0.32 0.81 0.19 0.19 0.36 0.38											
0.06 0.06 0.06 0.06 0.06 0.15 0.15 0.15 0.36 0.36 0.36 0.36											
0.06 0.06 0.06 0.06 0.06 0.20 0.19 0.19 0.32 0.32 0.32 0.32											
0.03 0.03 0.03 0.03 0.03 0.28 0.27 0.44 0.45 0.45 0.45 0.45											
*NO RECORD											
*NO RECORD											
SEVEN TRANSDUCERS DISCONNECTED											
*UNREADABLE											
*UNREADABLE											
*UNREADABLE											
*QUESTIONABLE											
*UNREADABLE											
*UNREADABLE											
*UNREADABLE											

STRUCTURAL ACCELERATION RESPONSE - TEST HOUSE NO. 1										ACCELERATIONS (g's)										PAGE 9 of 9
(SELECTED DAILY FLIGHTS)																				
DATE	FLY NO.	TYPE	O.P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REMARKS	
		ACFT.	(PSF)						ACCEL.	TRANSDUCER NO.										
7/19/64	1163	F-101	3.15	0.03			0.04		0.18	0.18	—	—	—	—	—	—	—	—	UNREADABLE	
7/20/64	1177	F-101	1.61	0.03			0.07		0.15	0.16	0.65		0.06				0.30	0.25		
7/22/64	1183	F-101	1.51	0.04			0.05		0.10	0.10	0.34		0.04				0.30	0.28		
7/23/64	1195	F-101	1.32	0.02			0.02		0.11	0.09	0.35		0.06				0.21	0.24		
7/24/64	1206	F-101	1.08	0.03			0.07		0.08	0.08	0.38		0.03				0.24	0.31		
7/26/64	1219	F-101	1.41	0.02			0.03		0.14	0.16	0.53		0.07				0.26	0.29		
7/27/64	1230	F-101	1.20	0.02			0.02		0.14	0.14	0.21		0.04				0.24	0.26		
7/28/64	1235	F-101	2.96	0.04			0.04		0.08	0.25	0.41		0.15				0.42	0.27		
7/29/64	1243	F-101	1.32	0.03			0.04		0.08	0.22	0.20		0.07				0.24	0.18		
7/30/64	1251	F-101	1.62	0.03			0.03		0.14	0.21	0.28		0.07				0.30	0.28		
MAXIMUM VALUE				0.07	0.17	0.13	0.07	0.17	0.89	0.44	0.94	0.47	0.21	0.39	0.23	0.38	0.67	0.54		

ALL STRUCTURAL RESPONSE - TEST HOUSE NO. 5																
PAGE 1 of 6																
DATE	F.T. NO.	OVERPRESSURE (PSF)	STRAIN GAGES ($\mu\text{in./in.}$)							ACCELEROMETERS (in.)				DIFF. TRANSFORMER (in.)		REMARKS
			1	2	3	4	5	6	7	1	2	3	4	1	2	
July 8, '64	1071	1.40	1.56	5.80	8.05	3.81	5.85	23.4	—	—	0.0204	0.0197	—	—	—	NO BOOM
	1072	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	1073	0.89	1.23	3.96	3.41	1.87	3.30	21.10	—	—	0.1372	0.0251	—	—	—	
	1074	1.30	1.39	5.06	5.25	1.94	4.90	25.00	—	—	—	0.0627	—	—	—	
	1075	1.16	1.23	4.51	4.71	1.94	5.00	24.70	—	—	0.0248	0.0125	—	—	—	
	1076	1.28	1.23	5.70	6.27	1.94	4.85	32.30	—	—	0.0321	0.0197	—	—	—	
	1077	1.89	1.72	9.11	5.12	2.28	5.85	26.70	—	—	0.0307	0.0179	—	—	—	
	1078	0.74	1.06	3.59	2.66	0.76	2.80	20.0	—	—	0.0015	0.0072	—	—	—	
July 9, '64	1079	1.11	2.95	6.39	9.00	1.58	3.95	19.3	—	—	0.0409	0.0107	—	—	—	* QUESTIONABLE * QUESTIONABLE * QUESTIONABLE
	1080	1.28	4.34	9.40	15.75	2.74	6.25	28.18	—	—	0.0599*	0.0555*	—	—	—	
	1081	1.54	2.87	6.12	10.2	1.58	4.25	21.2	—	—	0.0788*	0.1864*	—	—	—	
	1082	1.16	2.11	7.03	8.44	2.06	3.95	20.93	—	—	0.1022*	0.2757*	—	—	—	
	1083	1.37	3.44	6.30	11.39	1.51	3.40	26.78	—	—	0.0292	0.0161	—	0.010	0.000	
	1084	0.87	2.38	6.39	10.02	1.03	2.85	23.2	—	—	0.0315	0.0365	0.0143	0.018	0.001	
	1085	1.44	3.11	7.21	13.98	2.68	5.60	22.88	—	—	0.1029*	0.0350	0.0115	0.006	0.000	
	1086	1.37	3.03	6.21	9.82	1.92	3.70	15.6	—	—	—	—	—	—	—	
July 10, '64	1087	0.97	2.90	3.27*	12.16	1.88	3.33	18.4	—	—	0.0204	0.0161	0.0072	0.008	0.000	NO ACCELEROMETERS NO ACCELEROMETER
	1088	0.90	2.74	3.11	11.82	1.88	3.09	18.08	—	—	0.0277	—	0.0094	0.007	0.000	
	1089	0.92	2.58	3.38	14.03	1.47	3.28	19.18	—	—	—	—	—	—	—	
	1090*	1.10	2.90	2.84	8.95	1.61	3.87	15.34	—	—	—	—	—	—	—	
	1091	1.19	2.42	3.81	13.03	1.54	1.96	19.45	—	—	0.0282	0.0365	0.0101	0.010	0.000	
	1092	1.19	1.37	2.89	4.68	1.27	4.12	10.96	—	—	0.0083	0.0292	0.0266	0.009	0.000	
	1093	1.26	2.02	3.48	5.95	1.68	5.39	27.13	—	—	0.0066	0.0292	0.0094	0.012	0.000	
	1094	0.90	1.21	2.30	5.48	1.27	3.43	27.7	—	—	0.0083	0.0204	0.0086	0.010	0.000	
July 11, '64	1095	1.07	1.91	3.95*	8.94	2.37	3.19	21.33	—	—	0.0116	0.0453	0.0115	0.024	0.000	
	1096	0.88	1.91	3.78	10.02	2.58	4.08	20.20	—	—	0.0100	0.0350	0.0058	0.026	0.000	
	1097	0.98	1.16	2.52	5.28	2.23	2.99	19.08	—	—	0.0033	0.0175	0.0122	0.010	0.000	
	1098	0.39	0.58	1.37	3.54	1.32	1.34	8.14	—	—	0.0033	0.0131	0.0050	0.006	0.000	
	1099	1.63	2.40	4.71	8.26	2.71	6.42	31.15	—	—	0.0216	0.0419	0.0079	0.035	0.000	
	1100	1.47	1.91	3.62	6.23	2.51	5.43	21.61	—	—	0.0100	0.0350	0.0072	0.007	0.000	
	1101	0.77	1.25	2.74	5.96	1.46	3.78	18.24	—	—	0.0116	0.0277	0.0137	0.016	0.000	
	1102	0.61	1.08	1.81	3.05	0.90	3.14	16.00	—	—	0.0064	0.0161	0.0079	0.017	0.000	
* = B-30 * CAL. FAC. QUESTIONABLE																

* CAL. FAC. QUESTIONABLE

* = B-30

ALL STRUCTURAL RESPONSE - TEST HOUSE NO. 5

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DATE	FLT NO.	OVERPRESSURE (psf)	STRAIN GAGES ($\mu\text{in./in.}$)							ACCELEROMETERS (m)				DIFF. TRANSFORMER (m)		REMARKS	
			1	2	3	4	5	6	7	1	2	3	4	1	2		
July 12, '64	F-101																
	1103	1.57	2.26	7.0	9.9	2.6	6.10	26.4	—	0.0133	0.0489	0.0161	0.0079	—	—	—	
	1104	1.25	1.53	6.44	5.8	2.73	5.2	24.3	—	0.0149	0.0394	0.0143	0.0065	—	—	—	
	1105	0.91	0.97	5.94	5.8	2.46	3.88	19.3	—	0.0083	0.0321	0.0143	0.0086	—	—	—	
	1106	0.98	1.61	4.96	5.8	2.04	4.87	22.6	—	0.0083	0.0423	0.0251	0.0101	—	—	—	
	1107	1.27	2.42	7.18	8.3	2.86	5.78	22.1	—	0.0199	0.0409	0.0215	0.0079	—	—	—	
July 13, '64	1108	0.36	0.645	1.93	2.12	0.615	1.66	15.2	—	0.0	0.0146	0.0	0.0	—	—	—	
	1109	1.45	3.06	8.1	8.7	3.38	5.16	25.6	—	0.0166	0.0423	0.0215	0.0094	—	—	—	
	1110	0.89	2.82	6.44	9.56	3.38	4.72	23.4	—	0.0100	0.0438	0.0226	0.0101	—	—	—	
	1111	—	3.76	5.52	8.33	2.12	5.78	27.80	12.95	0.0166	0.0423	0.0233	0.0079	0.053	0.000	*AMPLIFIER OFF	
	1112	1.20	3.76	6.53	8.06	2.87	6.22	26.16	14.46	0.0133	0.0423	0.0215	0.0079	0.058	0.000		
	1113	1.20	2.13	3.96	8.19	1.84	4.80	26.16	10.18	0.0149	0.0409	0.0215	0.0058	0.039	0.000		
July 14, '64	1114	1.52	4.25	7.82	9.68	2.60	6.37	26.16	13.58	0.0266	0.0498	0.0179	0.0115	0.055	0.000		
	1115	1.22	1.96	4.42	7.04	1.57	4.70	26.71	10.94	0.0166	0.0394	0.0251	0.0058	0.044	0.000		
	1116	1.24	1.64	6.16	6.23	1.43	4.56	27.25	10.70	0.0249	0.0350	0.0251	0.0026	0.044	0.000		
	1117	0.85	2.29	4.60	7.45	1.91	5.59	26.43	10.31	0.0166	0.0350	0.0197	0.0086	0.042	0.000		
	1118	1.29	3.27	7.73	10.90	2.30	6.17	33.25	18.86	0.0282	0.0526	0.0179	0.0108	0.078	0.000		
	1119	1.07	2.93	4.48	2.98	3.85	5.21	29.70	10.36	0.0199	0.0394	0.0251	0.0157	0.040	0.100		
July 15, '64	1120	1.35	2.32	3.83	7.88	3.44	5.06	22.19	7.67	0.0166	0.0292	0.0215	0.0065	0.032	0.000		
	1121	1.26	2.99	5.05	7.55	2.40	6.05	26.63	12.01	0.0199	0.0423	0.0394	0.0094	0.049	0.000		
	1122	1.24	2.57	4.96	7.35	3.23	5.95	27.46	12.52	0.0183	0.0438	0.0215	0.0094	0.049	0.000		
	1123	1.05	2.44	5.33	7.28	1.99	5.16	23.58	9.59	0.0232	0.0394	0.0143	0.0094	0.040	0.000		
	1124	1.14	1.58	4.02	7.75	1.72	4.17	18.86	7.67	0.0199	0.0336	0.0233	0.0079	0.032	0.000		
	1125	0.63	3.24	4.49	4.41	1.51	2.83	19.70	6.39	0.0149	0.0292	0.0197	0.0079	0.034	0.000	GALVO OUT	
July 16, '64	1126	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	1127	1.66	2.47	9.27	8.88	2.87	5.77	27.19	8.34	0.0133	0.0584	0.0286	0.0137	0.029	0.000		
	1128	1.33	2.64	6.12	8.08	2.80	6.11	30.79	7.46	0.0166	0.0423	0.0364	0.0122	0.027	0.000		
	1129	0.95	3.63	5.84	6.55	1.02	3.89	19.42	6.45	0.0249	0.0467	0.0179	0.0122	0.030	0.000		
	1130	0.86	3.63	4.82	4.81	1.30	3.45	18.86	7.08	0.0100	0.0394	0.0143	0.0115	—	—	OFF SCALE	
	1131	0.88	3.96	5.10	6.28	1.16	3.89	19.70	7.33	0.0166	0.0321	0.0251	0.0101	—	—	OFF SCALE	
July 16, '64	1132	1.02	3.83	4.26	6.01	1.84	4.24	18.86	7.20	0.0133	0.0292	0.0286	0.0094	—	—	OFF SCALE	
	1133	1.21	4.20	6.30	6.21	2.19	4.73	23.58	8.85	0.0149	0.0365	0.0215	0.0115	—	—	OFF SCALE	
	1134	1.24	5.03	6.67	7.35	1.91	5.52	24.41	11.00	0.0216	0.0453	0.0197	0.0137	—	—	OFF SCALE	

ALL STRUCTURAL RESPONSE - TEST HOUSE NO. 5

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DATE	FLT NO.	OVERPRESSURE psfs	STRAIN GAGES ($\mu\text{in}/\text{in}$)						ACCELEROMETERS (m)				DIFF. TRANSFORMER (in)		REMARKS	
			1	2	3	4	5	6	7	1	2	3	4	1	2	
July 16, '64	1135	0.71	0.91	3.34	6.06	1.15	2.42	16.97	3.54	0.0066	0.0292	0.0125	0.0050	0.014	0.070	
	1136	0.74	1.32	5.19	7.94	1.47	3.16	23.02	5.81	0.0100	0.0453	0.0161	0.0101	0.022	0.070	
	1137	1.16	2.06	6.67	7.67	2.70	4.39	27.41	6.95	0.0149	0.0496	0.0251	0.0108	0.026	0.070	
	1138	0.97	1.48	6.12	8.08	2.49	3.75	24.12	6.32	0.0083	0.0438	0.0179	0.0072	0.023	0.070	
	1139	1.70	1.98	9.55	11.57	2.36	7.20	35.91	12.77	0.0133	0.0292	0.0197	0.0086	0.048	0.070	
July 17, '64	1140	1.30	1.32	5.38	10.10	1.89	4.04	32.34	6.83	0.0100	0.0336	0.0147	0.0065	0.027	0.070	
	1141	1.01	0.82	6.49	7.47	2.22	3.89	24.12	6.32	0.0116	0.0307	0.0179	0.0058	0.026	0.070	* No RECORD
	1142	1.22	1.24	5.84	7.54	1.82	4.44	21.11	5.56	---	---	---	---	0.022	0.070	
	1143	1.27	1.72	6.49	10.57	2.05	4.66	28.29	6.19	0.0066	0.0394	0.0215	0.0072	0.020	0.070	
	1144	1.36	1.47	6.40	11.46	2.65	5.01	25.24	5.56	0.0100	0.0423	0.0179	0.0072	0.018	0.070	
July 18, '64	1145	1.49	1.55	6.67	10.23	1.92	5.26	27.74	6.95	0.0100	0.0365	0.0179	0.0072	0.023	0.070	
	1146	1.05	1.88	7.79	11.25	1.79	4.07	33.85	5.56	0.0133	0.0394	0.0233	0.0144	0.032	0.070	
	1147	1.10	1.72	7.88	9.07	2.25	4.41	26.35	3.29	0.0083	0.0394	0.0161	0.0065	0.023	0.070	
	1148	0.83	0.98	3.99	7.57	1.59	2.53	20.53	3.03	0.0033	0.0234	0.0161	0.0058	0.011	0.070	
	1149	0.74	1.15	4.82	6.68	0.86	2.68	17.48	2.15	0.0033	0.0204	0.0125	0.0094	0.009	0.070	No RECORD
July 19, '64	1150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	1151	1.28	1.31	5.56	9.62	1.94	3.63	26.31	3.13	0.0100	0.0292	0.0143	0.0043	0.021	0.070	
	1152*	0.82	1.31	5.10	5.21	1.07	3.43	20.01	4.00	0.0133	0.0336	0.0143	0.0058	0.015	0.070	
	1153	1.07	1.80	7.42	9.29	1.81	4.38	27.96	6.00	0.0083	0.0438	0.0179	0.0072	0.025	0.070	
	1154*	1.00	1.72	5.38	7.08	1.07	3.98	27.96	6.00	0.0083	0.0284	0.0179	0.0058	0.023	0.070	
July 19, '64	1155	1.09	1.80	6.77	8.35	1.68	3.48	25.49	5.75	0.0166	0.0336	0.0161	0.0065	0.023	0.070	
	1156*	0.89	1.15	4.54	5.74	1.01	1.86	23.02	3.38	0.0116	0.0321	0.0179	0.0072	0.013	0.070	
	1157	0.57	1.15	4.45	6.48	1.07	1.92	17.82	2.38	0.0083	0.0321	0.0107	0.0065	0.010	0.070	
	1158*	1.37	1.64	7.97	8.44	1.47	2.37	30.15	5.63	0.0100	0.0496	0.0179	0.0086	0.025	0.070	
	1159	1.10	0.97	4.64	6.5	1.12	4.12	25.6	6.0	0.0100	0.0350	0.0179	0.0050	0.023	0.070	
July 19, '64	1160*	0.74	1.21	7.2	5.3	0.99	3.3	24.8	5.23	0.0133	0.0438	0.0251	0.0072	0.020	0.070	
	1161	0.70	0.583	4.36	4.2	1.08	2.2	28.0	3.25	0.0166	0.0292	0.0125	0.0072	0.014	0.070	
	1162*	0.74	0.89	5.75	4.835	0.99	1.56	21.4	5.1	0.0083	0.0350	0.0090	0.0043	0.020	0.070	
	1163	1.53	1.13	7.8	9.2	2.38	6.83	29.75	8.1	0.0116	0.0256	0.0197	0.0079	0.032	0.070	
	1164	0.56	0.484	3.09	3.45	0.95	1.36	21.0	1.74	0.0066	0.0175	0.0107	0.0086	0.048	0.070	
July 19, '64	1165	0.74	0.97	4.35	6.2	1.72	2.48	27.0	2.87	0.0100	0.0204	0.0179	0.0101	0.012	0.070	
	1166	0.70	0.645	5.2	4.76	1.72	2.3	26.5	3.25	0.0083	0.0234	0.0179	0.0072	0.013	0.070	

* F=106

* F-106

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ALL STRUCTURAL RESPONSE - TEST HOUSE NO. 5

DATE	FLT NO F-101	OVERPRESSURE q-sf	STRAIN GAGES ($\mu\text{in}/\text{in}$)							ACCELEROMETERS (in)				DIFF. TRANSFORMER (in)		REMARKS
			1	2	3	4	5	6	7	1	2	3	4	1	2	
July 20, '64	1167	0.94	0.92	4.96	7.35	1.27	3.90	25.05	4.27	0.0133	0.0321	0.0161	0.0072	0.016	0.000	
	1168	1.27	1.47	6.44	11.22	2.61	6.16	27.48	6.29	0.0199	0.0413	0.0143	0.0026	0.024	0.000	
	1169	1.34	1.01	5.52	7.41	1.74	4.82	27.75	5.78	0.0083	0.0380	0.0179	0.0072	0.010	0.000	
	1170	0.85	1.66	6.26	7.08	1.47	3.33	30.71	4.40	0.0100	0.0394	0.0215	0.0130	0.019	0.000	
	1171	1.34	0.83	5.52	5.28	1.68	3.13	19.94	4.27	0.0133	0.0392	0.0143	0.0076	0.016	0.000	
	1172	0.92	1.01	7.08	9.08	2.14	4.62	26.94	5.41	0.0100	0.0409	0.0215	0.0065	0.022	0.000	
July 21, '64	1173	0.85	1.20	5.61	5.48	1.54	3.69	17.24	5.90	0.0199	0.0307	0.0179	0.0072	0.015	0.000	
	1174	1.08	1.29	7.18	9.08	5.29	5.23	22.63	5.78	0.0133	0.0409	0.0197	0.0076	0.021	0.000	
	1175	1.27	1.06	7.03	10.57	2.43	5.23	27.25	7.54	0.0133	0.0423	0.0197	0.0072	0.027	0.000	* OFF SCALE
	1176	0.75	0.74	4.93	7.13	1.69	5.60	22.35	5.03	0.0066	0.0372	0.0161	0.0058	0.018	0.000	* OFF SCALE
	1177	1.76	3.44	5.02	8.14	1.89	7.44	21.80	9.30	0.0116	0.0321	0.0197	0.0065	---	0.000	* OFF SCALE
	1178	1.70	3.76	5.84	8.68	2.70	7.44	21.26	10.56	0.0199	0.0467	0.0233	0.0058	---	0.000	* OFF SCALE
July 22, '64	1179	1.32	3.52	5.39	10.90	2.70	5.32	23.98	11.06	0.0199	0.0409	0.0269	0.0101	---	0.000	* OFF SCALE
	1180	1.22	2.13	3.56	5.38	1.69	3.45	14.99	7.29	0.0100	0.0354	0.0215	0.0058	---	0.000	* OFF SCALE
	1181	0.75	1.80	3.29	3.63	0.61	1.97	14.72	5.66	0.0066	0.0321	0.0179	0.0050	0.028	0.000	
	1182	0.56	1.47	3.01	3.23	0.67	1.58	13.08	5.28	0.0083	0.0304	0.0161	0.0065	0.026	0.000	
	1183	1.17	1.06	4.42	5.47	1.40	3.52	22.89	5.03	0.0133	0.0394	0.0233	0.0058	0.020	0.000	
	1184	0.845	0.73	5.34	5.99	1.40	3.66	24.53	7.29	0.0133	0.0423	0.0197	0.0079	0.026	0.000	
July 23, '64	1185	1.41	2.44	5.34	6.05	2.13	4.39	24.53	7.16	0.0133	0.0336	0.0197	0.0072	0.030	0.000	
	1186	1.87	1.62	4.42	5.47	1.73	3.71	22.07	5.91	0.0133	0.0350	0.0179	0.0058	0.027	0.000	
	1187	0.70	2.03	4.42	5.47	1.40	2.22	22.89	6.91	0.0133	0.0324	0.0179	0.0079	0.024	0.000	
	1188	0.56	2.11	4.14	4.69	3.00	2.75	19.08	6.16	0.0116	0.0409	0.0161	0.0053	0.021	0.000	
	1189	0.80	2.60	4.14	6.08	1.53	2.36	22.89	6.29	0.0100	0.0348	0.0215	0.0101	0.031	0.000	
	1190	0.66	1.62	3.50	7.68	1.27	1.98	17.44	6.03	0.0133	0.0348	0.0197	0.0094	0.027	0.000	
July 23, '64	1191	0.73	0.80	5.84	5.34	1.71	3.33	21.84	5.41	0.0083	0.0321	0.0161	0.0050	0.021	0.000	
	1192	0.68	0.72	5.39	5.34	1.65	2.89	20.57	5.78	0.0161	0.0292	0.0143	0.0072	0.023	0.000	
	1193	0.93	0.80	4.20	7.10	1.25	3.13	18.91	5.53	0.0116	0.0423	0.0233	0.0108	0.021	0.000	
	1194	0.75	0.64	4.29	5.86	1.38	2.57	21.31	4.78	0.0066	0.0350	0.0179	0.0072	0.019	0.000	No Boom
	1195	0.93	3.52	6.12	8.01	2.04	5.21	21.84	7.67	0.0133	0.0569	0.0179	0.0072	0.064	0.000	No Boom
	1196	0.94	1.12	2.10	2.60	0.59	1.54	9.32	3.52	0.0066	0.0117	0.0107	0.0072	0.018	0.000	

* OFF SCALE
* OFF SCALE
* OFF SCALE
* OFF SCALE

No Boom
No Boom

ALL STRUCTURAL RESPONSE - TEST HOUSE NO. 5

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DATE	FLT NO	OVERPRESSURE (PSF)	STRAIN GAGES ($\mu\text{in/in}$)					ACCELEROMETERS (m)					DIFF. TRANSFORMER (m)		REMARKS		
			1	2	3	4	5	6	7	1	2	3	4	1		2	
July 24, '64	1199	127	2.26	4.73	6.88	1.38	3.88	21.19	8.95	0.0183	0.0321	0.0179	0.0072	—	0.000	* OFF SCALE	
	1200	123	2.82	5.10	5.01	1.91	4.12	20.93	9.33	0.0149	0.0526	0.0161	0.0079	0.038	0.000	MISSED BOOM	
	1201	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	1202	101	2.34	4.45	5.08	1.71	3.10	17.48	7.41	0.0133	0.0511	0.0215	0.0058	0.033	0.000	—	
	1203	132	2.66	5.28	8.28	1.78	3.83	26.23	10.99	0.0149	0.0449	0.0215	0.0086	0.030	0.000	—	
	1204	123	1.85	4.26	3.81	1.38	3.01	13.77	4.35	0.0116	0.0219	0.0179	0.0050	0.023	0.000	* OFF SCALE	
July 25, '64	1205	272	3.06	7.97	11.09	2.30	4.95	34.44	15.72	0.0199	0.0394	0.0304	0.0144	—	0.000	—	
	1206	0.88	0.64	2.22	1.94	0.66	1.16	8.48	2.68	0.0066	0.0234	0.0161	0.0029	0.014	0.000	—	
	1207	117	1.29	5.75	6.04	1.19	3.61	24.11	5.21	0.0100	0.0307	0.0197	0.0108	0.021	0.000	—	
	1208	102	0.97	5.01	4.45	1.32	3.03	19.02	4.30	0.0149	0.0350	0.0215	0.0072	0.017	0.000	—	
	1209	128	1.05	4.64	5.44	1.39	3.51	20.36	4.68	0.0149	0.0380	0.0179	0.0101	0.018	0.001	—	
	1210	0.95	0.97	4.64	5.44	1.66	2.73	19.82	4.04	0.0100	0.0350	0.0286	0.0050	0.017	0.000	—	
July 26, '64	1211	113	0.81	4.45	5.11	1.39	2.73	20.26	4.04	0.0106	0.0336	0.0179	0.0072	0.017	0.100	—	
	1212	0.88	0.48	3.89	4.58	0.86	1.66	17.95	3.40	0.0083	0.0377	0.0143	0.0058	0.010	0.000	* DT #1 OUT	
	1213	1.92	1.45	6.30	9.56	2.05	2.98	34.95	3.92	0.0133	0.0321	0.0430	0.0194	—	0.000	* DT #1 OUT	
	1214	1.72	0.89	5.19	3.98	3.57	2.64	19.82	3.29	0.0100	0.0283	0.0215	0.0072	—	0.000	—	
	1215	1.29	—	—	—	—	—	—	—	—	0.0083	0.0336	0.0197	0.0079	0.019	0.000	STRAIN GAGES OUT
	1216	0.98	0.89	5.47	5.01	1.20	3.24	24.38	4.47	0.0083	0.0321	0.0179	0.0086	0.015	0.000	* AMPLIFIER OFF	
July 27, '64	1217	1.20	0.97	5.85	6.26	1.40	3.19	21.97	4.73	0.0100	0.0292	0.0179	0.0072	0.016	0.000	—	
	1218	1.26	1.14	5.85	6.85	1.93	3.78	24.11	5.50	0.0083	0.0336	0.0197	0.0065	0.019	0.000	—	
	1219	1.74	1.87	6.41	8.70	2.86	6.97	27.86	8.95	0.0166	0.0330	0.0449	0.0094	0.029	0.000	—	
	1220	1.26	1.14	7.07	6.92	1.47	4.48	21.61	4.86	0.0149	0.0365	0.0231	0.0086	0.016	0.000	—	
	1221	0.72	0.49	3.39	4.09	0.73	1.54	19.29	2.30	0.0083	0.0161	0.0161	0.0072	0.009	0.000	—	
	1222	1.16	1.22	6.32	4.94	1.53	3.34	20.63	3.83	0.0100	0.0283	0.0143	0.0079	0.014	0.000	—	
July 27, '64	1223	0.97	—	—	—	—	—	—	—	0.0100	0.0248	0.0212	0.0065	0.020	0.000	* MISSED	
	1224	1.30	—	—	—	—	—	—	—	0.0100	0.0321	0.0179	0.0079	0.016	0.000	* MISSED	
	1225	1.06	—	—	—	—	—	—	—	0.0150	0.0263	0.0197	0.0050	0.012	0.000	* MISSED	
	1226	—	—	—	—	—	—	—	—	—	—	—	—	—	—	* MISSED BOOM	
	1227	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	* NO MEASURABLE DEF.	
	1228	1.86	1.05	6.21	6.81	1.84	4.04	21.97	5.14	0.0100	0.0307	0.0161	0.0065	0.019	0.000	—	
July 27, '64	1229	1.21	1.05	7.05	5.46	1.71	3.75	25.72	5.68	0.0166	0.0365	0.0497	0.0094	0.022	0.000	—	
	1230	0.95	0.81	5.38	6.10	1.45	3.35	24.63	4.87	0.0100	0.0277	0.0079	0.0065	0.019	0.000	—	

ALL STRUCTURAL RESPONSE - TEST HOUSE NO. 5														
PAGE 6 of 6														
DATE	FRT NO	OVERPRESSURE PSIA	STRAIN GAUGE ($\mu\text{in/in}$)							ACCELEROMETERS (m)				REMARKS
			1	2	3	4	5	6	7	1	2	3	4	
July 28, 64	1231	1.02	0.73	5.02	4.52	1.05	2.59	2.04	4.31	0.0133	0.0263	0.0179	0.0086	*NO DEFLECTION *OFF SCALE
	1232	0.96	0.97	5.75	6.52	1.70	3.17	2.58	4.67	0.0166	0.0380	0.0251	0.0079	
	1233	2.02	1.29	6.39	6.46	1.90	4.93	24.38	6.77	0.0133	0.0365	0.0233	0.0072	
	1234	1.38	2.74	5.57	5.88	2.22	3.90	20.90	11.81	0.0116	0.0321	0.0143	0.0065	
	1235	1.73	2.42	6.03	8.53	2.62	4.73	25.18	12.05	0.0149	0.0380	0.0179	0.0058	
	1236	1.00	2.10	7.04	2.03	2.03	2.98	20.90	9.84	0.0133	0.0324	0.0125	0.0072	
	1237	1.09	1.77	4.38	1.05	1.05	2.20	27.59	12.30	0.0133	0.0219	0.0286	0.0137	
	1238	1.09	2.18	4.75	4.01	1.64	2.93	15.81	8.73	0.0100	0.0167	0.0161	0.0101	
July 29, 64	1239	0.80	0.64	4.57	5.23	1.74	2.62	16.95	4.08	0.0050	0.0204	0.0161	0.0065	*POWER OFF *POWER OFF *POWER OFF
	1240	0.88	0.79	5.30	4.54	1.62	3.15	15.69	2.85	0.0100	0.0263	0.0197	0.0065	
	1241	0.80	0.87	6.12	4.91	1.68	2.43	21.72	3.59	0.0100	0.0321	0.0197	0.0086	
	1242	2.03	1.91	7.49	6.55	2.00	4.90	23.58	5.44	0.0116	0.0350	0.0143	0.0138	
	1243	1.80	0.87	7.67	9.64	3.23	3.49	28.87	6.31	0.0066	0.0336	0.0179	0.0065	
	1244	1.15	1.35	8.76	7.31	2.26	4.37	22.25	4.21	0.0100	0.0292	0.0233	0.0101	
	1245	1.37	1.24	7.12	6.80	2.33	3.88	22.25	6.06	0.0050	0.0336	0.0197	0.0065	
	1246	1.12	1.20	5.39	5.39	1.56	3.27	21.72	3.15	0.0100	0.0292	0.0179	0.0072	
July 30, 64	1247	1.29	1.28	5.93	8.28	2.28	3.42	21.72	4.12	0.0116	0.0321	0.0161	0.0058	*QUESTIONS ** Very small.
	1248	1.16	0.96	6.48	9.63	1.76	4.29	28.61	4.84	0.0083	0.0365	0.0215	0.0058	
	1249	1.27	1.28	7.12	6.81	2.21	3.51	22.25	2.91	0.0100	0.0336	0.0197	0.0101	
	1250	0.94	1.20	6.30	5.14	1.56	2.83	23.05	4.00	0.0133	0.0263	0.0161	0.0072	
	1251	1.16	1.08	8.86	5.15	2.15	4.00	26.03	5.81	0.0066	0.0326	0.179	0.0072	
	1252	0.90	1.20	5.65	1.69	1.69	3.12	22.78	4.84	0.0116	0.0263	0.0197	0.0065	
	1253	1.67	1.68	9.40	7.06	2.41	4.44	26.13	5.69	0.0161	0.0438	0.0465	0.0331	
	MAX. VALUE	5.03	7.55	15.73	7.44	35.91	18.86	0.129*	0.172	0.2357*	0.0731	0.078	0.001	

Excerpts From
REPORT ON SPECIAL STUDY
OF
FIRST NATIONAL BUILDING

August 31, 1964

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INTRODUCTION

The original First National Building was constructed in 1931-32 consisting of a 32-story tower fronting west on Robinson Avenue, plus two 13-story wings. Total height of the tower is about 407 feet excluding beacon tower. At the rear (east) of the tower are the two 13-story wings joined by a 4-story section. Most of the original 31st floor of the tower has been considerably altered (including windows) and is operated by a separate corporation known as the Beacon Club.

In 1957-58, a 14-story office building fronting north on Park Avenue was constructed across the east ends of the two wings, and connects to a 13-story parking garage built in 1956 which extends south from the office building to Main Street. Due in part to the fact that no window glass damage was claimed for either of these newer structures, the office building addition and the parking garage have been omitted in this investigation. It may be significant that no window glass damage has been claimed for the office building addition, but the study and analysis involved were considered to be beyond the scope of this investigation.

A map showing the street location and orientation of the First National Building (FNB), plus a photograph of the west elevation, are included on pages 3 and 4.

General directions and areas for this investigation, as defined in engineers' directive, were as follows:

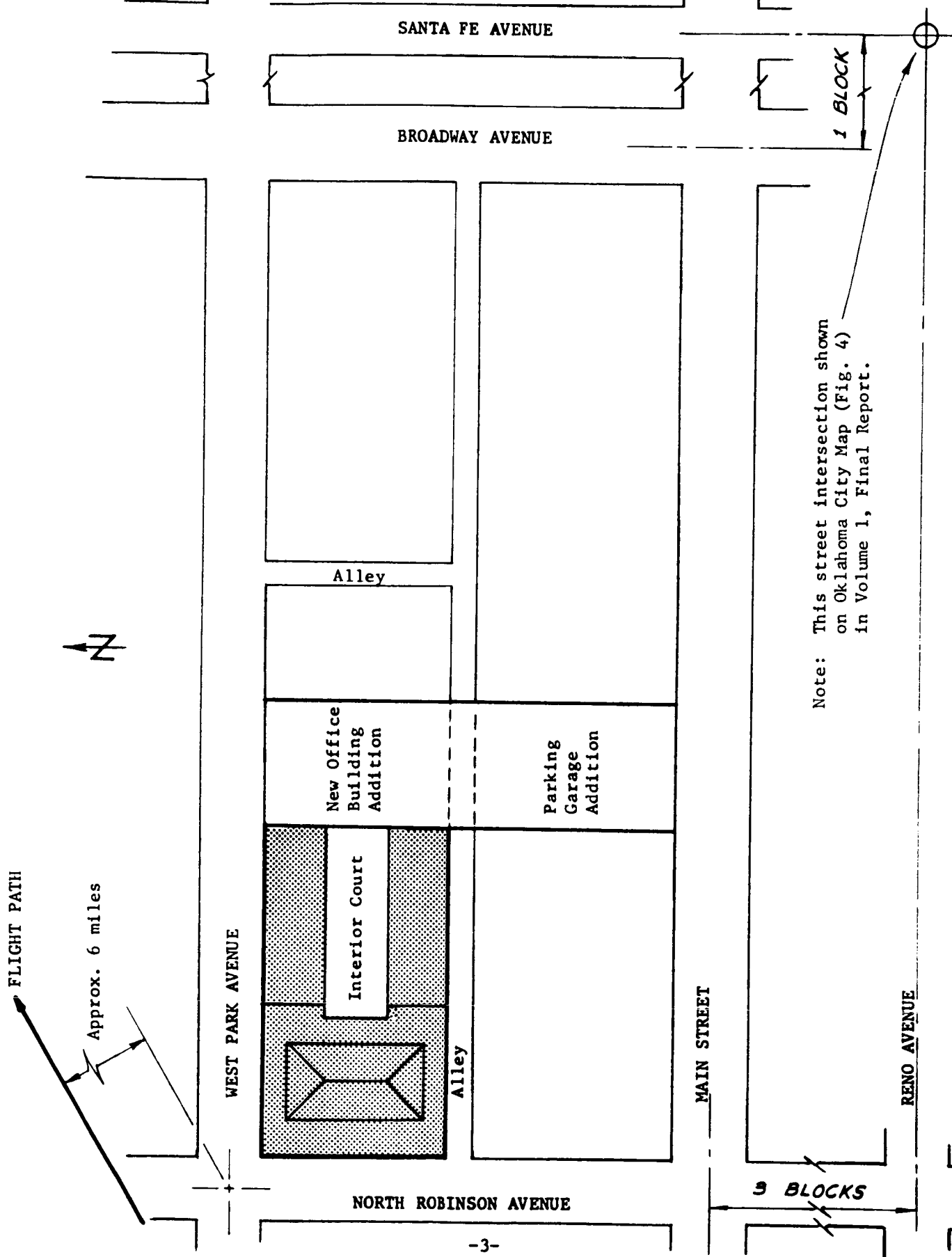
1) Make an inventory and detailed inspection of all windows in First National Building to determine location, condition, and construction details, particularly with respect to glass manufacturer's recommendations and published data.

*2) Measure overpressures produced from sonic booms at various levels and sides of the building.

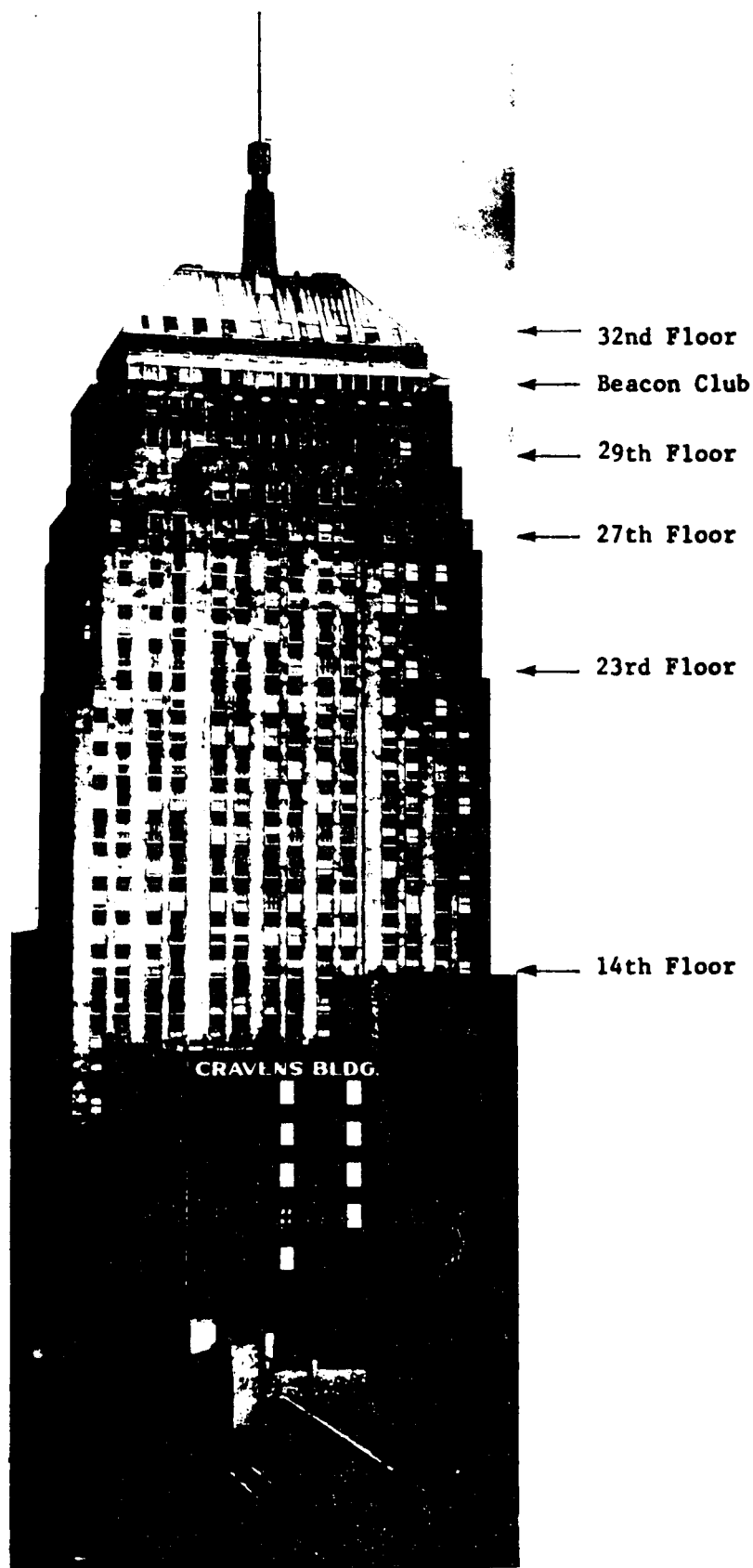
*3) In addition, it was subsequently considered necessary to develop and furnish a portable instrument system to precisely measure and record selected window glass deflections and frequencies.

*(Note: Excerpts included herein relate only to the latter two areas of investigation.)

STREET LOCATION & ORIENTATION OF FIRST NATIONAL BUILDING



FIRST NATIONAL BUILDING - OKLAHOMA CITY
West (Front) Elevation



OVERPRESSURE MEASUREMENTS

Prior to starting this investigation, and in connection with the general studies of overpressure distribution within the program test area, overpressure measurements had been taken on Sunday, May 31, at street level on all four sides of the block of which the First National Building occupies the northwest quarter. The location of the building with respect to the streets bounding this block is shown on preceding page 3.

In the effort to determine, if possible, the general level and nature of overpressures which had occurred, and were occurring, at various levels and sides of the building, a series of overpressure measurements were made each day during the period of June 13-19, 1964 and on July 11, 1964. Accessibility to some desired locations was limited due, in some cases, to building configuration, and in others to tenant occupancy of office space adjoining. However, overpressure readings at four sides or corners of the building were obtained at the 32nd*, 29th, and 27th floor levels. Since it was considered desirable to be able to estimate maximum overpressures which may have occurred at any time, at any point, at the building, microphone locations were selected when feasible at points where "focusing" should occur, such as the extreme corner of building insets. *(South side not accessible)

Also, overpressure readings were obtained at the 14th floor (west wall) and at the four corners of the 13th floor roof and at the bottom (5th floor level) of the interior court. On June 14, in an effort to obtain an indication of the overpressure relation between top and bottom of the building, simultaneous readings were obtained at street level and at the 32nd floor level.

All overpressure measurements obtained at various locations on and around the building have been tabulated by date and flight number (pages 6, 7 & 8) and are correlated to comparable overpressure measurements (and the average) recorded at Test Houses No. 1, 3 and 4 to determine what relationship, if any, existed between overpressures produced in the FNB area and overpressures produced at the test houses.

OVERPRESSURE MEASUREMENTS AT FIRST NATIONAL BUILDING
COMPARED TO O.P. MEASUREMENTS AT TEST HOUSES

1 of 3

Date 1964	Flight No.	Test House #1	Test House #3	Test House #4	AVG. of 1,3,&4	FNB	Mic. Location @ FNB				
6/13	1	1.57	1.39	1.10	1.35	.35	Bottom	of interior	court		Mobile Unit B
	2 (F-106)	x	1.71	2.36	-	.19	"	"	"	"	
	3	1.87	1.23	1.19	1.43	.28	"	"	"	"	
	4	1.84	1.65	1.52	1.67	.31	"	"	"	"	
	5	1.45	1.69	1.15	1.43	.28	"	"	"	"	
	6	1.82	1.34	1.17	1.44	.31	"	"	"	"	
6/14	1	1.24	1.76	1.14	1.38	1.27	32nd Floor	- West	side		Mobile Unit B
	2	1.31	1.50	.90	1.24	1.46	"	"	"	"	
	3	1.22	1.63	2.67	1.84	x	"	"	- North	side	
	4	1.51	2.16	2.02	1.90	1.44	"	"	"	"	
	5	1.16	1.76	1.14	1.35	.42	"	"	- East	side	
	6	1.92	1.13	3.05	2.03	.45	"	"	- "	"	
	7	.92	2.16	1.60	1.56	.50	"	"	- North	side	
	8	1.22	2.24	2.15	1.87	.55	"	"	"	"	
6/14	1	Same as above			1.38	1.35	Street	level	- West	side	Mobile Unit A
	2				1.24	1.12	"	"	"	"	
	3				1.84	.82	"	"	"	"	
	4				1.90	1.00	"	"	"	"	
	5				1.35	.55	Street	level	- East	side	
	6				2.03	.47	"	"	"	"	
	7				1.56	.55	"	"	"	"	
	8				1.87	.40	"	"	"	"	
6/14	1	Same as above			1.38	1.18	Street	level	- North	side	Mobile Unit C
	2				1.24	.83	"	"	"	"	
	3				1.84	.98	"	"	"	"	
	4				1.90	.91	"	"	"	"	
	5				1.35	1.74	Street	level	- South	side	
	6				2.03	1.40	"	"	"	"	
	7				1.56	2.51	"	"	"	"	
	8				1.87	1.30	"	"	"	"	
x = Equipment malfunction											
○ = Copy of O.P. tape included herein.											

OVERPRESSURE MEASUREMENTS AT FIRST NATIONAL BUILDING COMPARED TO O.P. MEASUREMENTS AT TEST HOUSES										
2 of 3										
Date 1964	Flight No.	Test House #1	Test House #3	Test House #4	AVG. of 1,3,&4	FNB	Mic. Location @ FNB (Mobile Unit B)			
6/15	1	1.43	?	2.04	-	.90	29th Floor - NE Corner Inset			
	2	1.34	1.53	1.51	1.46	.87	"	"	"	"
	3	1.32	1.81	1.35	1.49	1.36	"	"	- NW Corner Inset	"
	4	1.32	2.38	1.20	1.63	2.53	"	"	- " " "	"
	5	1.23	1.64	1.44	1.44	1.59	"	"	"	"
	6	.95	1.98	.81	1.25	1.45	"	"	"	"
	7	.91	1.31	2.06	1.43	.76	"	"	- NE Corner Inset	"
	8	1.17	1.29	1.92	1.46	1.04	"	"	"	"
6/16	1	1.49	2.21	1.69	1.80	1.86	29th Floor - SW Corner Inset			
	2	1.46	1.49	2.22	1.72	1.84	"	"	"	"
	3	1.71	1.53	1.41	1.55	1.02	"	"	"	"
	4	1.30	1.13	1.21	1.21	2.22	"	"	"	"
	5	1.47	1.57	2.59	1.88	.97	"	"	- SE Corner Inset	"
	6	1.42	1.55	1.58	1.52	1.09	"	"	"	"
6/17	1	1.18	2.04	1.13	1.45	1.51	27th Floor - SE Corner Inset			
	2	1.69	1.20	.95	1.28	.68	"	"	"	"
	3	1.07	1.72	1.40	1.40	1.22	"	"	"	"
	4	1.30	1.44	.69	1.14	1.12	"	"	"	"
	5	1.30	2.67	.89	1.62	3.02	"	"	- SW Corner Inset	"
	6	.93	.92	1.45	1.10	1.31	"	"	"	"
	7	1.81	2.80	1.23	1.95	1.55	"	"	"	"
	8	1.09	1.81	.86	1.25	1.49	"	"	"	"
6/18	1	1.20	1.13	2.56	1.63	.77	27th Floor - NE Corner Inset			
	2	1.39	1.17	1.28	1.28	.28	"	"	"	"
	3	1.25	1.15	1.04	1.15	1.05	"	"	"	"
	4	1.15	1.69	2.68	1.84	1.05	"	"	"	"
	5	1.01	1.65	.60	1.09	1.84	27th Floor - NW Corner Inset			
	6	1.18	3.38	1.01	1.86	1.50	"	"	"	"
	7	1.65	1.82	1.11	1.53	1.12	"	"	"	"
	8	1.18	.93	.78	.96	1.66	"	"	"	"
6/19	1	1.29	1.26	1.19	1.25	.32*	.78	13th Floor Roof-NE		
	2	1.35	2.08	1.75	1.73	.35*	.76	"	"	"
	3	1.58	1.54	1.28	1.47	x	x	"	"	-SW
	4	.97	1.86	2.30	1.71	.32*	x	"	"	"
	5	1.18	1.60	1.91	1.56	.37*	.96	"	"	"
	6	1.31	1.58	2.05	1.65	.25*	.27	"	"	"
	7	1.72	2.49	3.16	2.46	.25*	.52	"	"	-SE
	8	1.36	1.64	2.25	1.75	.26*	.81	"	"	"
*One mic. fixed at center of catwalk over interior court.										
x = Equipment malfunction. () = Copy of O.P. tape included herein.										

OVERPRESSURE MEASUREMENTS AT FIRST NATIONAL BUILDING COMPARED TO O.P. MEASUREMENTS AT TEST HOUSES										
3 of 3										
Date 1964	Flight No.	Test House #1	Test House #3	Test House #4	AVG. of 1,3,&4	FNB	Mic. Location @ FNB			
6/20	1	1.46	1.67	1.96	1.70	O.P. not measured				
	2	1.27	1.90	.81	1.33					
	3	1.56	1.93	.74	1.41					
	4	1.73	1.26	1.86	1.62		Window deflections measured			
	5	2.06	2.27	.60	1.64		@ 26th Floor, Flts. 4-8			
	6	1.51	2.01	.49	1.34		" " " "			
	7	2.19	1.49	1.68	1.79		" " " "			
	8	1.21	1.64	2.95	1.93		" " " "			
7/11	1	1.58	.70	.49	.92	1.94	14th Floor - West Wall			
	2	2.02	1.81	1.42	1.75	1.11*	"	"	"	Mobile Unit C
	3	1.86	.85	.61	1.11	1.26*	"	"	"	
	4	.93	.81	.17	.64	.64*	"	"	"	
	5	1.41	1.68	1.70	1.60	1.18*	"	"	"	
	6	1.36	1.31	1.16	1.28	(1.33*)	"	"	"	
	7	1.81	2.03	1.65	1.83	(1.28*)	"	"	"	
	8	1.41	1.98	1.10	1.50	.85*	"	"	"	
*Window deflections measured simultaneously with these O.P.'s.										
**Following O.P. measurements taken by Mobile Unit C on block around First National Building before start of this investigation.										
5/31	1	1.34	1.55	1.13	1.34	-	Operation malfunction			
	2	1.09	1.20	1.63	1.31	-	" "			
	3	1.43	1.81	1.39	1.54	** .86	Street level (N)-Park Ave.			
	4	1.09	2.24	1.16	1.50	** .67	" (E)-Broadway			
	5	1.53	1.24	2.09	1.62	** .71	" (S)-Main St.			
	6	1.16	1.72	.61	1.16	** .63	" (W)-Robinson			
	7	1.46	1.37	.75	1.19	** 1.15	" (W)-Robinson			
() = Copy of O.P. tape included herein.										

OVERPRESSURE MEASUREMENTS (Concluded)

However, note that microphone locations at FNB in every case are dissimilar to the regular microphone ground installations at the test houses.

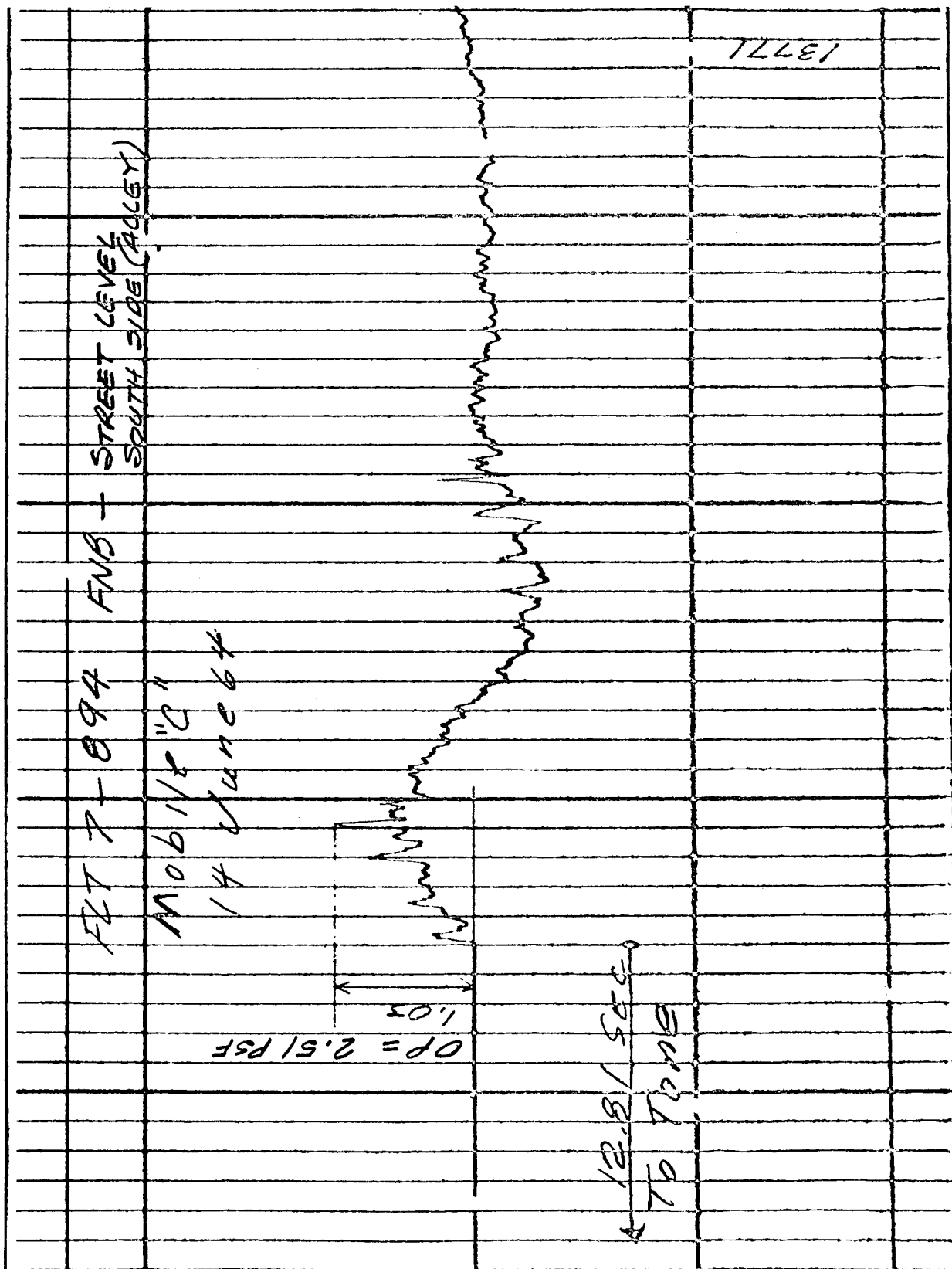
The maximum overpressure recorded at FNB during this study was 3.02 PSF in the extreme corner of the building inset at the southwest corner of the building at the 27th floor level on June 17 (Flight 5). Copies of this overpressure recording, along with other recordings of maximum measurements at other significant FNB locations, are included herein on pages 10, 11 and 12. Note the considerable variance in the nature of these recordings.

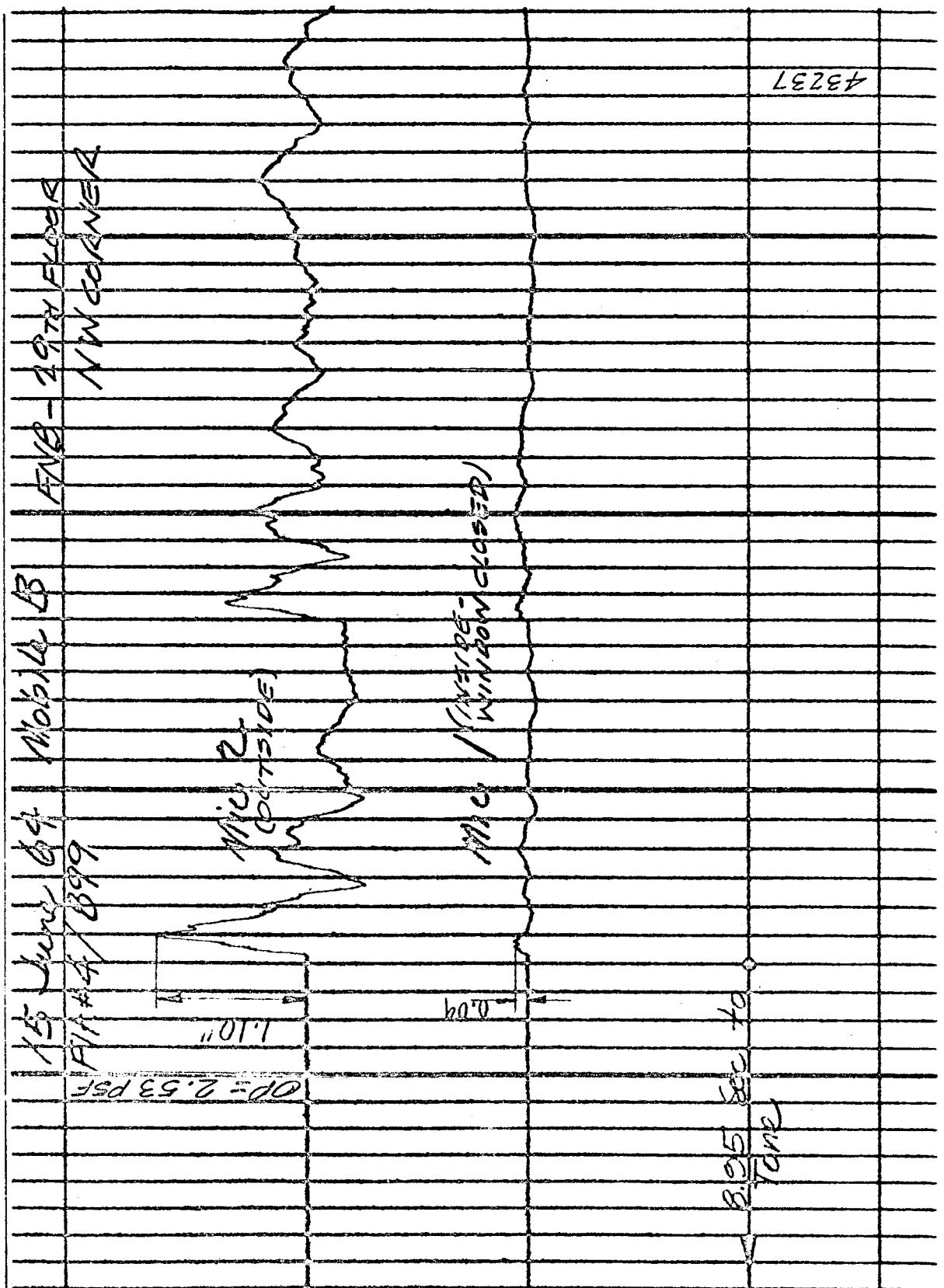
Other recordings showing wave forms (or "signatures") on the west wall of the building at the 14th floor level are included with the discussion on deflection measurements of windows.

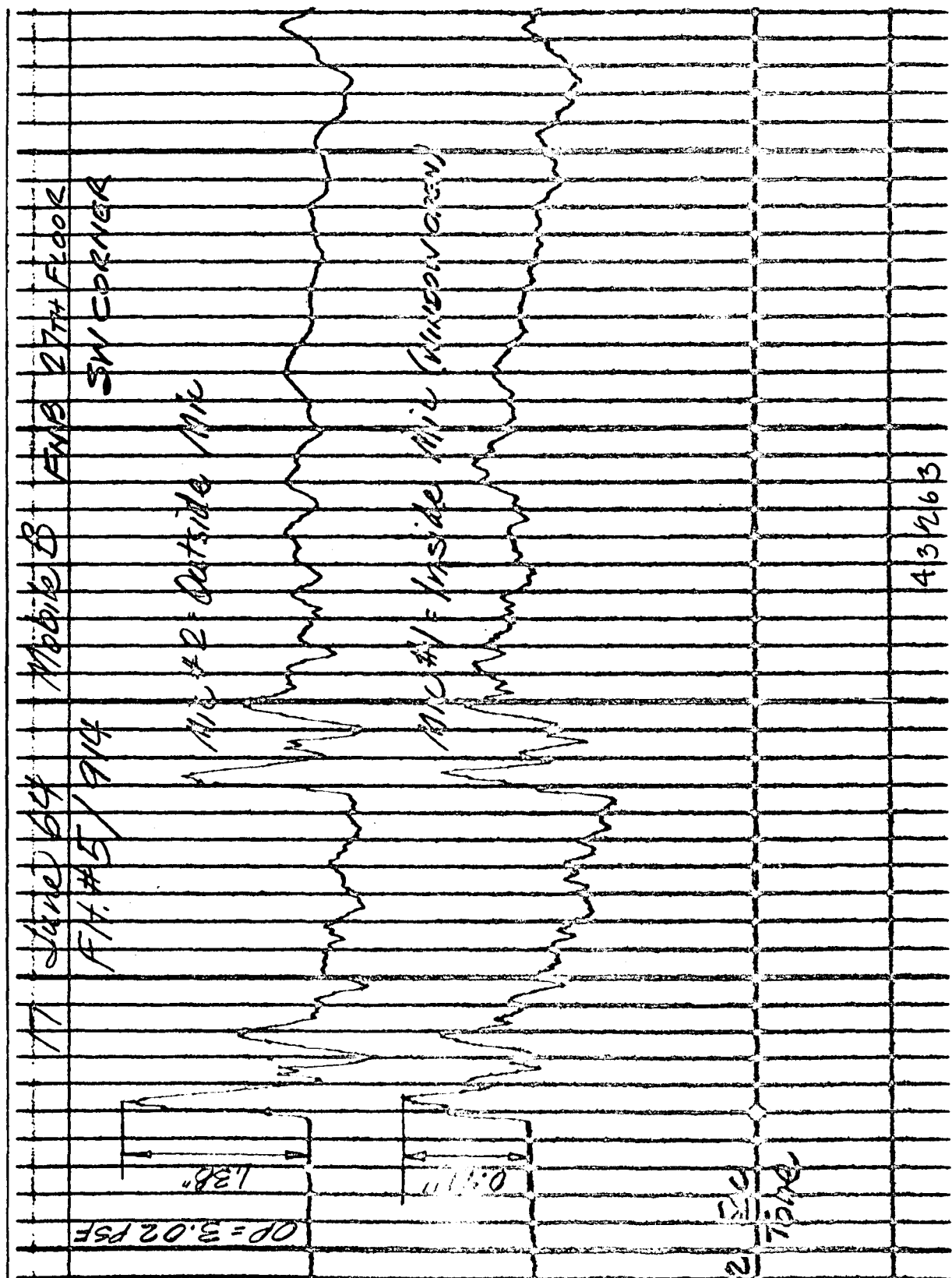
All of the test flights flown during this study were flown along the standard flight path using the F-101 airplane except Flight 2 on June 13 which utilized the F-106 airplane.

In connection with the very low overpressure values (.19-.35 PSF) measured at the bottom of the interior court of the building, it should be noted that the orientation of the building with respect to the flight path may be significant.

In connection with the simultaneous overpressure readings taken June 14th at street level and the 32nd floor level of the building, no significant difference in the general level of overpressures due to elevation differences is noted. However, it is noted that significantly greater values were recorded at street level in the alley on the south side of the building, but the nature of the wave form recorded (page 10) requires special study and analysis.







DEFLECTION MEASUREMENTS OF WINDOWS

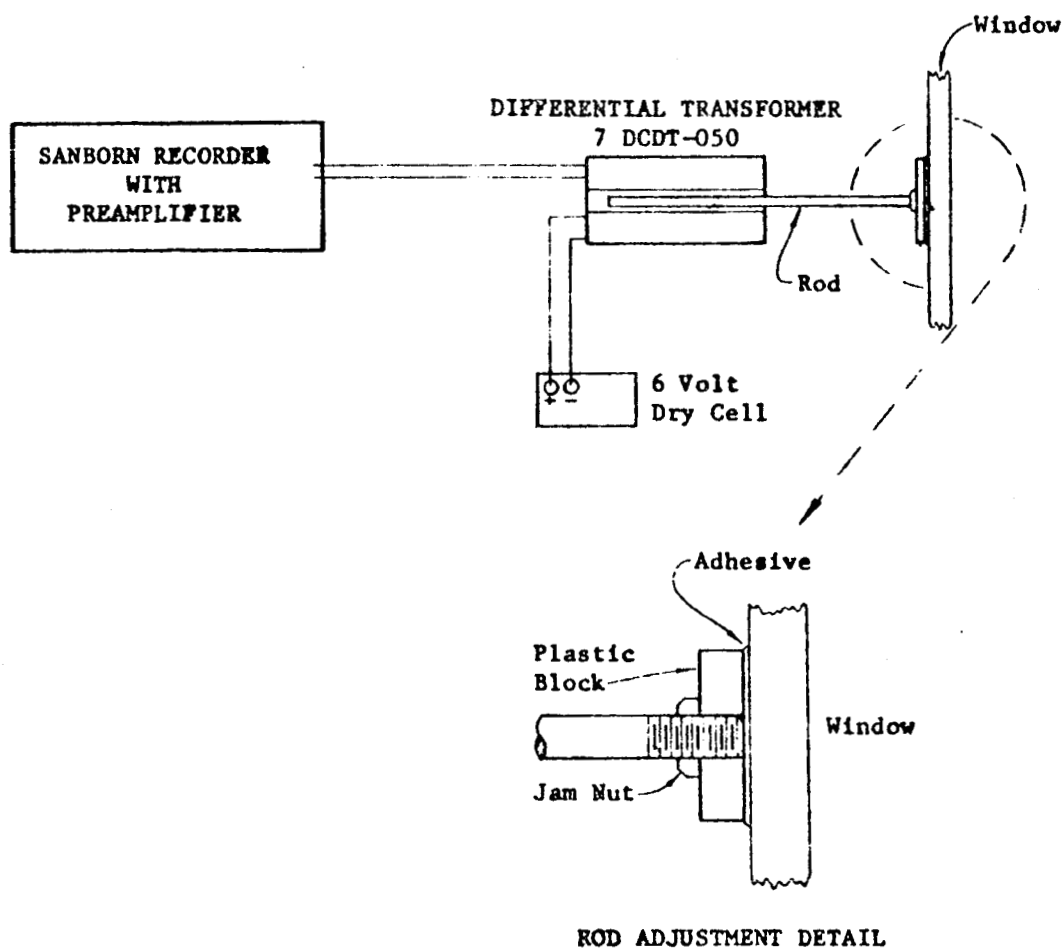
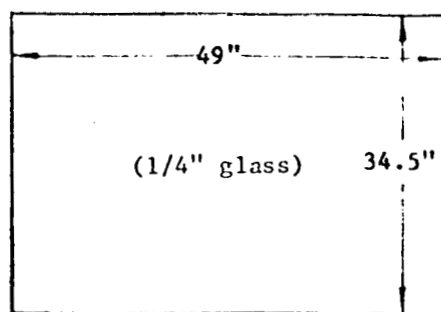
On July 11, 1964, window deflections were measured simultaneously with over-pressure for two windows of Room 1420 of the First National Building. This test was a continuation of an earlier test in which window vibration was measured but over-pressure was not.

The windows both faced west, are located near the center of the west elevation (see page 4), and in each case are lower panes in double-hung metal sashes. One window, designated as #1414, had a small crack across one lower corner, but was structurally sound in all other respects.

The instrumentation system for the measurement of dynamic deflection of the windows is shown as Figure 1 on following page, and was the same as for the first series of tests; a small high frequency differential transformer coupled to a Sanborn recorder. Calibrate deflection for this test measured 24 mm, producing a displacement formula of $y = .00278$ inch/mm of recorder deflection. Examples of deflection recordings are included herein as pages 18, 19 and 20.

The Sanborn 7 DCDT-050 differential transformer is powered by a 6-volt dry cell and contains an internal oscillator-modulator as well as a demodulator. The output of this instrument is dc voltage proportional to the motion of the small rod inside the cylinder. The scale of this instrument is 30 volts/inch with a maximum linear range of $\pm .050$ in. The frequency response extends to beyond 300 cps. The differential transformer was mounted on an aluminum boom which in turn was mounted upon a heavy elevator tripod, permitting adjustments to be made easily.

The Sanborn recorder has a heated stylus and a high gain preamplifier. The frequency response depends upon the deflection of the stylus, but is flat to around 90 cps which is quite adequate since the window frequencies are around 20 cps.

Figure 1. Instrumentation SystemFigure 2. Window Dimensions

The natural frequencies of both windows were measured by striking the window and then recording the resulting vibration. The natural periods and frequencies of vibration are as follows:

<u>Window</u>	<u>Period</u>	<u>Natural Frequency</u>
1414 (Small crack)	.05 Sec.	20 cps
1415	.05 Sec.	20 cps

Dimensions of the glass are as shown in Figure 2 on page 14.

The deflections of the two different windows were measured with the microphone placed outside the third window (#1416) in Room 1420 to obtain overpressure.

(Note: All windows remained closed during the test.) The distance from the microphone to the other windows was approximately 15 feet.

Following is a compilation of the deflections and accompanying stresses related to overpressure values. No data was recorded for Flight 1 due to equipment malfunction. The overpressure values are peak pressures scaled from the recordings and are intended only for a gross comparison.

<u>Flight</u>	<u>Window</u>	<u>Deflection</u> <u>mm</u>	<u>Displacement</u> <u>Inches</u>	<u>Peak Stress</u> <u>psi</u>	<u>Overpressure</u> <u>PSF</u>
1	1414*	Equipment malfunction		-	1.94
2	1414*	4.5	.0125	154	1.11
3	1415	7.0	.0194	239	1.26
4	1415	4.0	.0111	137	.64
5	1415	8.0	.0222	272	1.18
6	1415	10.0	.0278	342	1.33
7	1415	7.0	.0194	239	1.28
8	1414*	3.0	.0084	103	.85

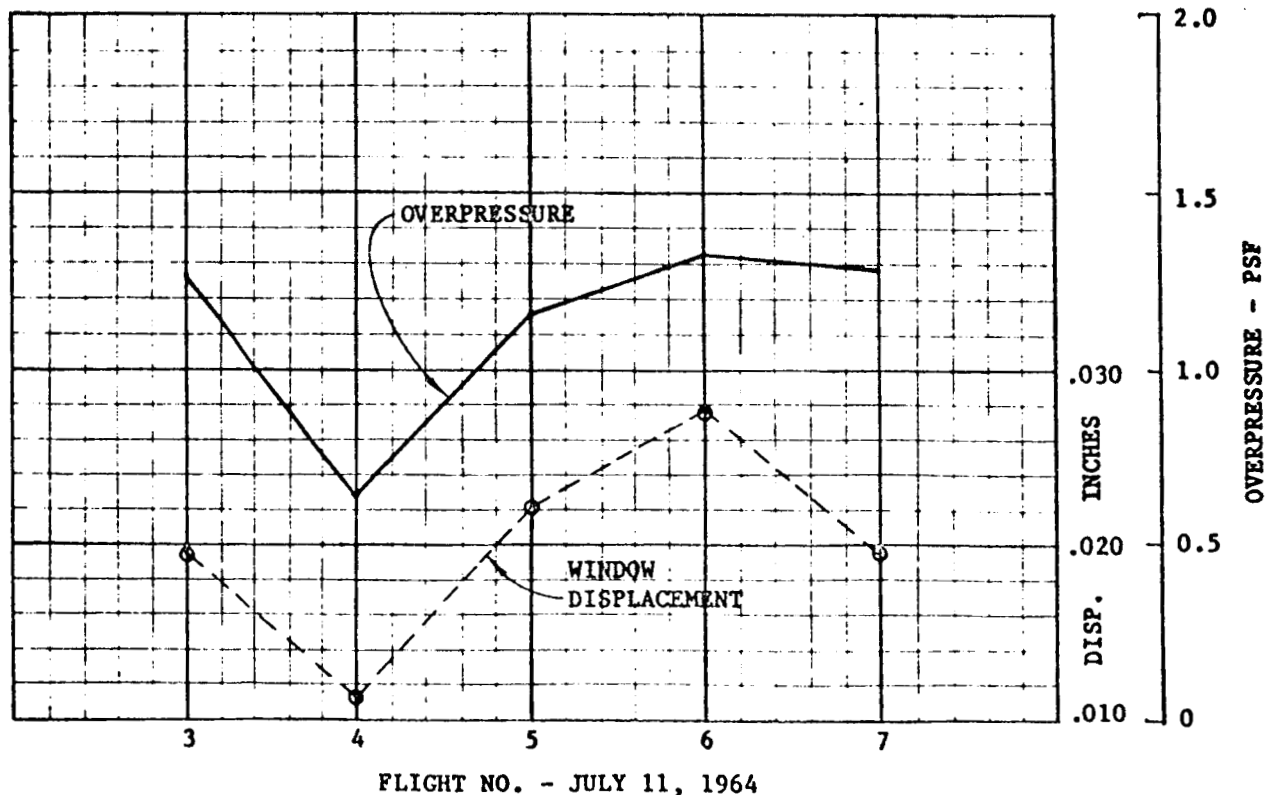
*Cracked

The stresses calculated near the center of the window are quite small and are low in comparison to the normal working stress of this type of glass. The highest stress calculated was 342 psi for Flight 6, with an overpressure of 1.33 PSF. The breaking stress of this type of glass could be taken as around 6,000 psi, indicating a considerable factor of safety for this level of overpressure.

Figure 3, below, is a plot of displacement and overpressure for Flights 3 through 7 on window #1415. As may be seen, there is a reasonably close correlation between overpressure and displacement. For example, consider Flights 3 and 7. In Flight 3 the displacement was .0194 inch, corresponding to an overpressure of 1.26 PSF. In Flight 7 the deflection was .0194 inch, corresponding to an overpressure of 1.28 PSF. However, in Flight 6, with an overpressure of 1.33 PSF, deflection was .0278. Overpressure recordings for Flight 6 and Flight 7 are herein included as pages 21 and 22 for comparison of these two wave shapes.

Since this analysis is based upon the measurement of the peak overpressures, it is possible that a closer correlation could be obtained if the over-all area of the wave, or the shape of the wave, was used instead of the peak pressure.

Figure 3. Window #1415 Displacement vs Overpressure



It may be of interest to note that the window deflections produced by rapping on the pane for the purposes of determining natural frequency in most cases equalled or exceeded the deflection produced by the overpressures occurring during the test. Note that the deflection produced by rapping on window #1415 (page 18) amounts to 12 millimeters while the deflection produced from the 1.33 PSF overpressure (Flight 6 - page 20) amounted to 10 millimeters for same instrument settings.

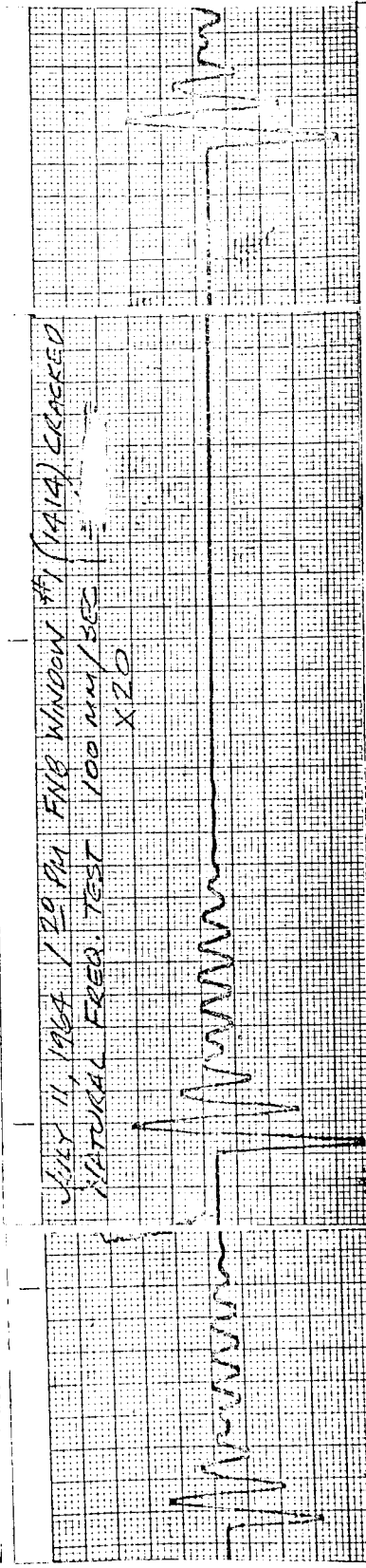
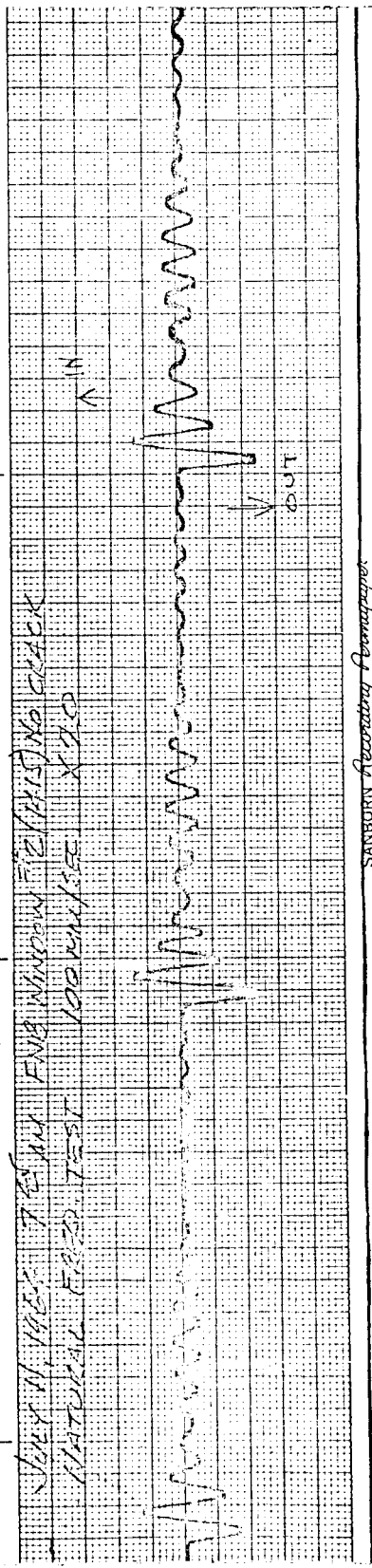
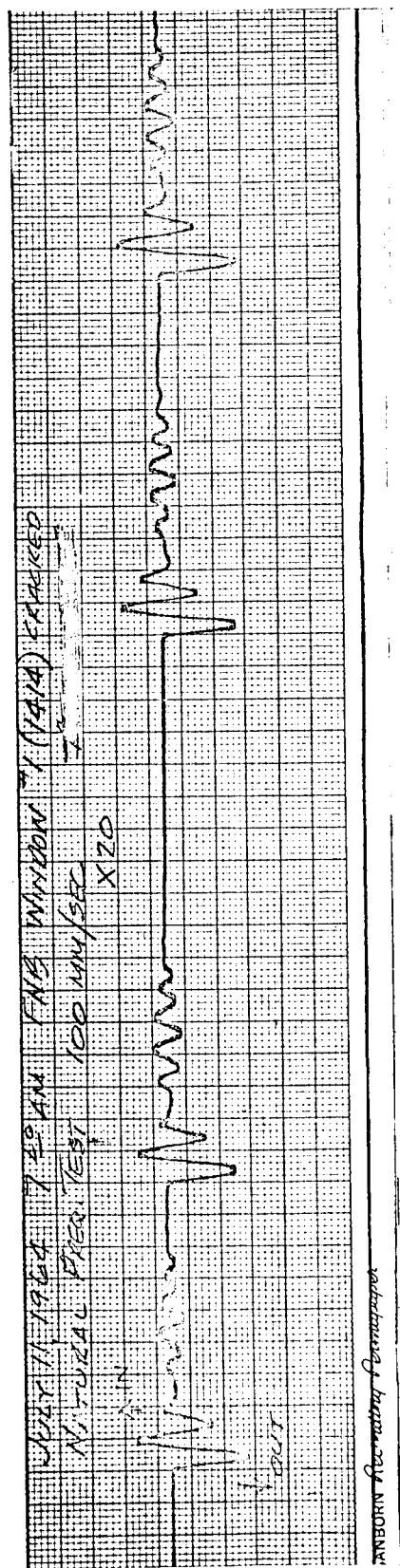
Under certain conditions, greater window glass displacements than those recorded could possibly occur. If the time duration of the boom is equal to an integer multiple of the natural period of the window structure, a displacement amplification could result. Thus, under unusual conditions, the amplitudes could be roughly double those recorded here. In the case of window #1415, if the boom duration (N wave total length) was exactly .05 (probably impossible), .10, .15, .20, or .25 seconds, greater deflections could occur. (Note: Also, the direction of maximum deflection, i.e. in or out, could vary.)

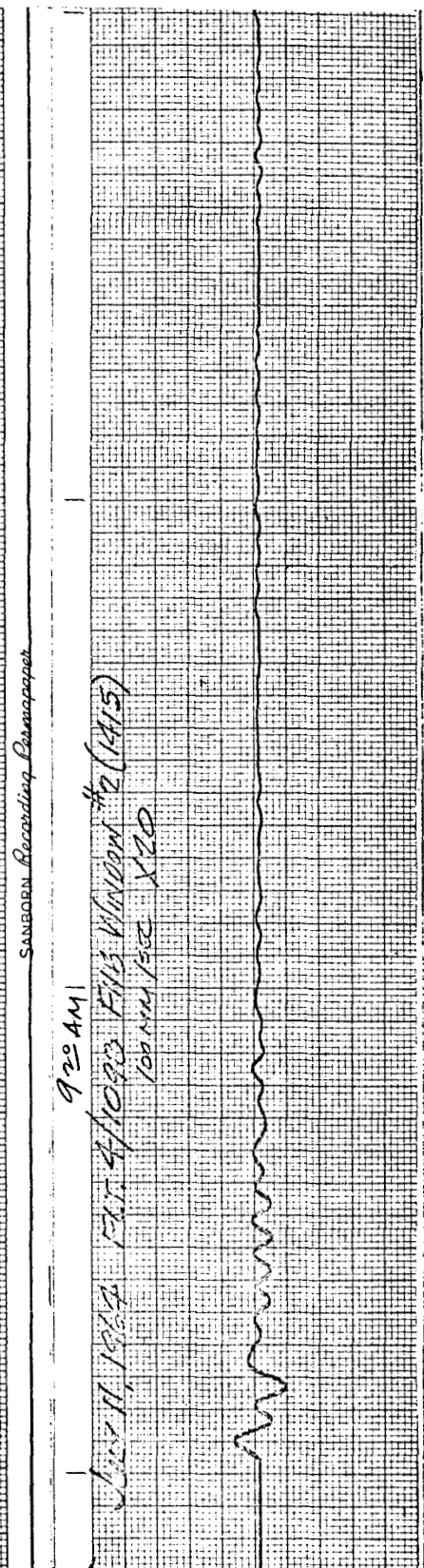
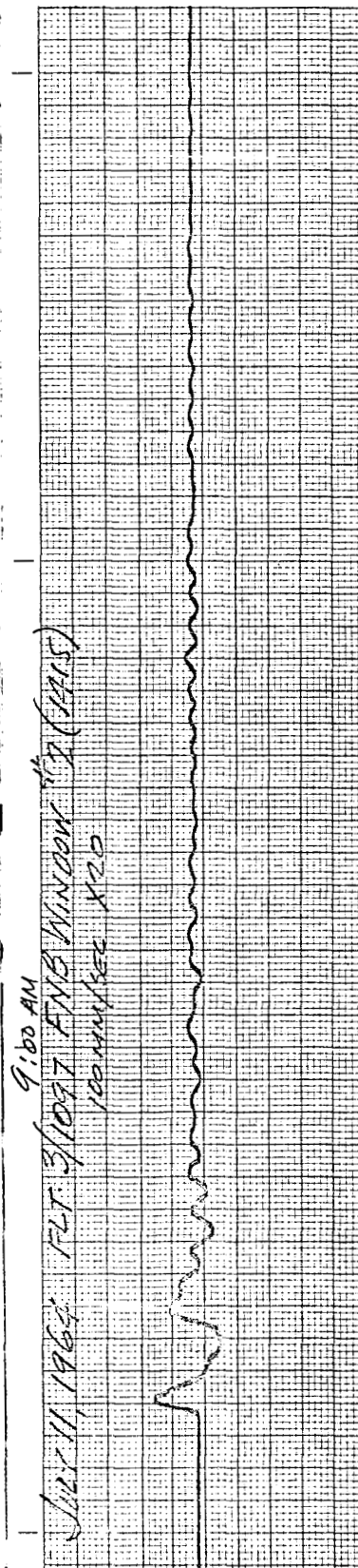
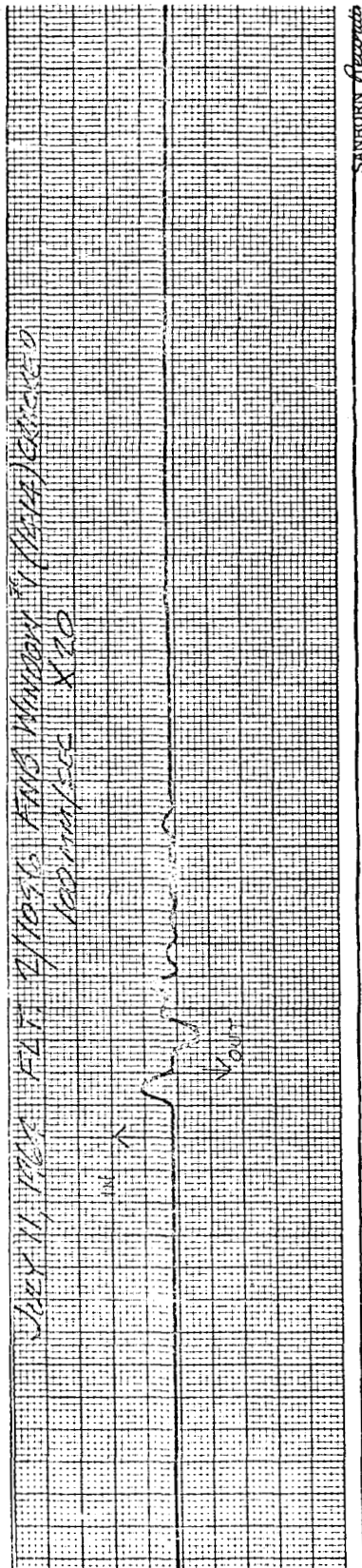
The shape of the "N" wave is important, and the preceding statement is based upon the assumption of the worst possible conditions.

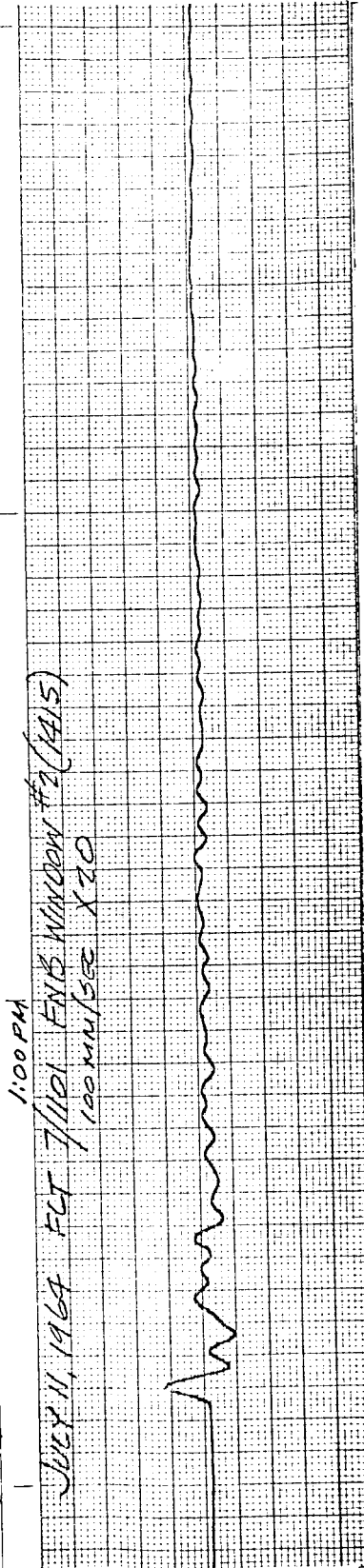
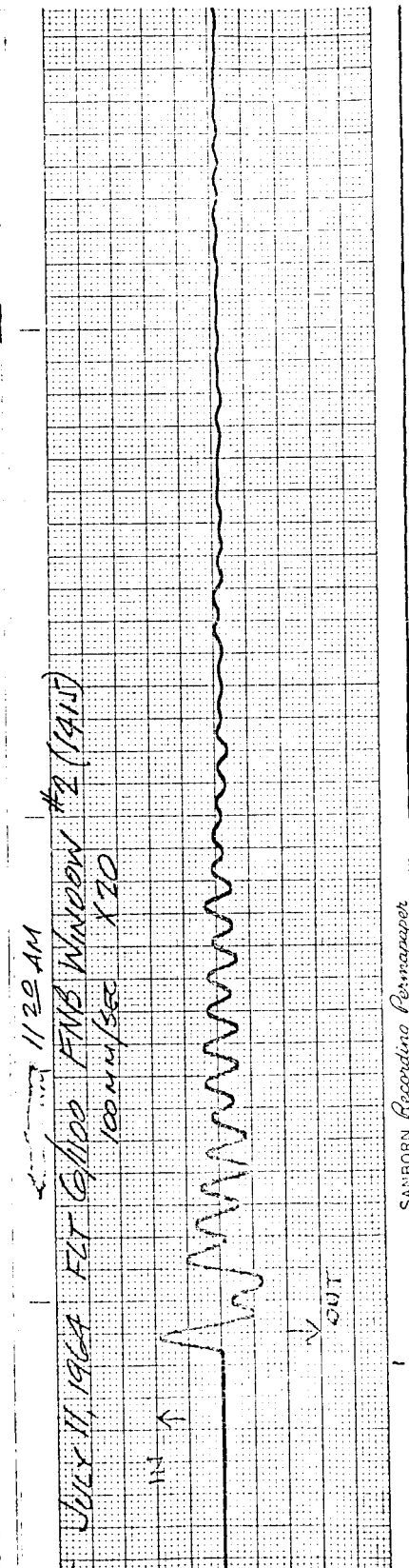
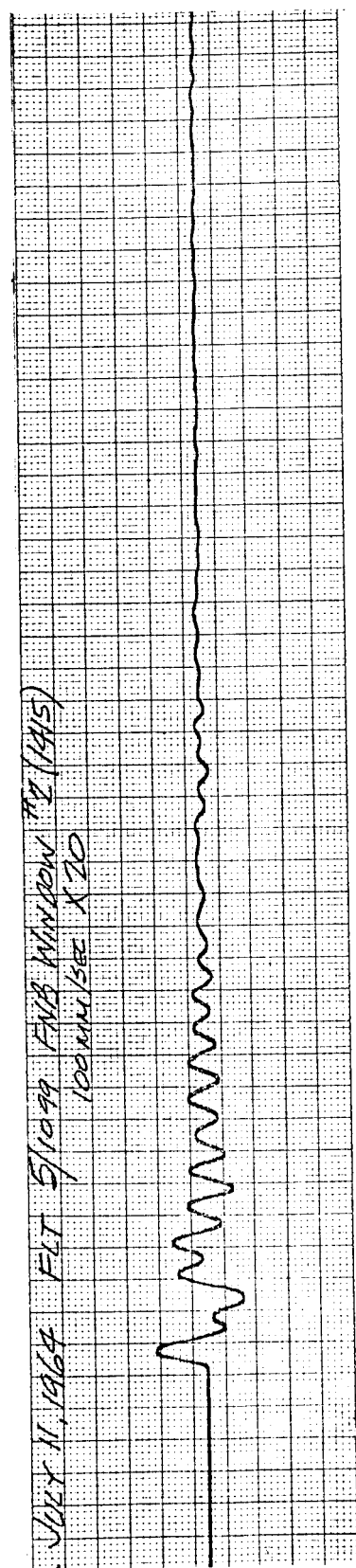
Considering a doubled amplitude response, these windows still would be subjected to less than the nominal working stress.

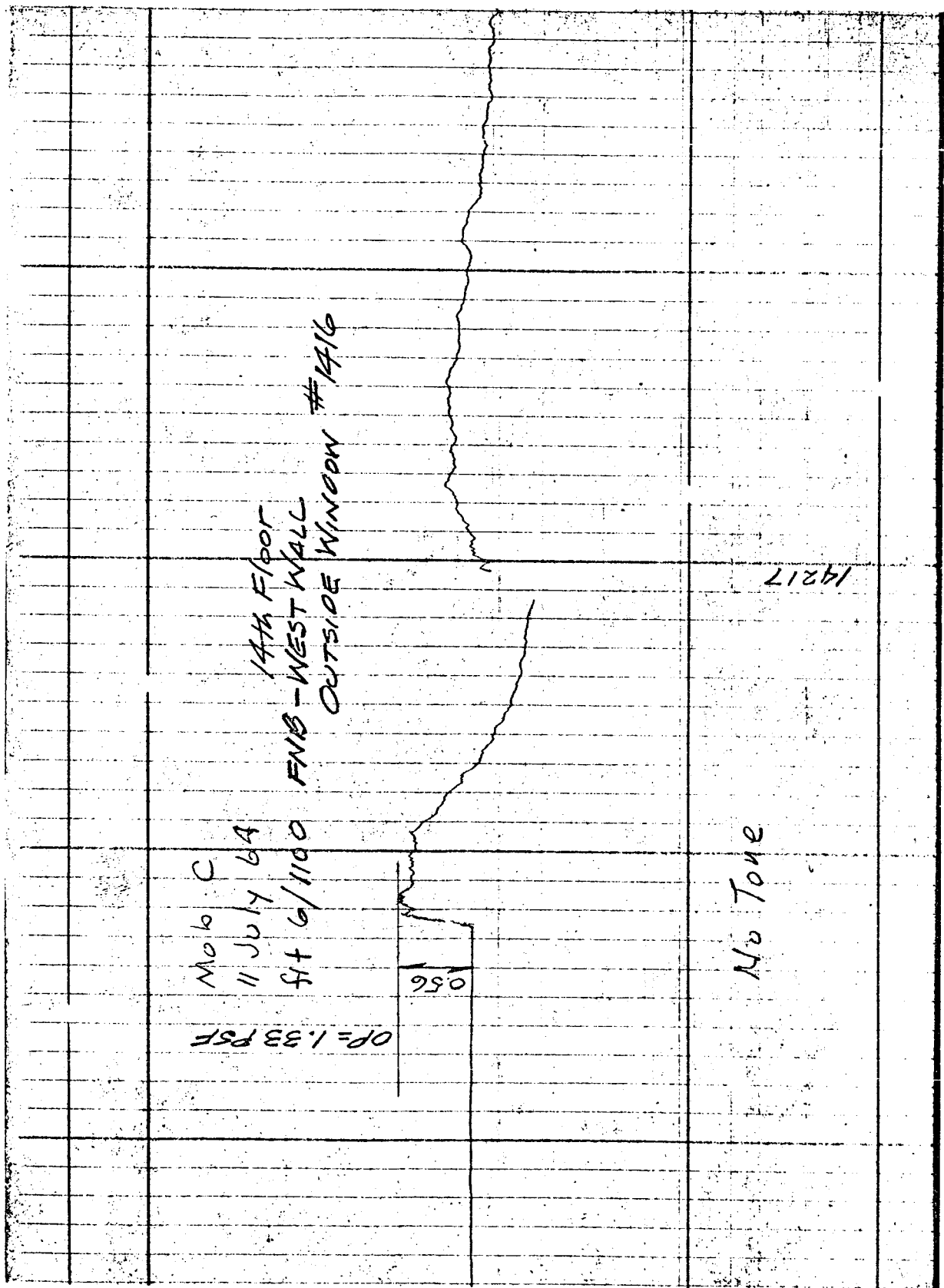
When a sonic boom impinges upon a complex of buildings, the resulting pressure wave will be considerably distorted due to the interaction of multiple reflections. Generally the duration of the wave will be longer and often the sharp rise period is rounded off; the character of the wave will bear little or no resemblance to the usual "N" wave as measured in a free field.

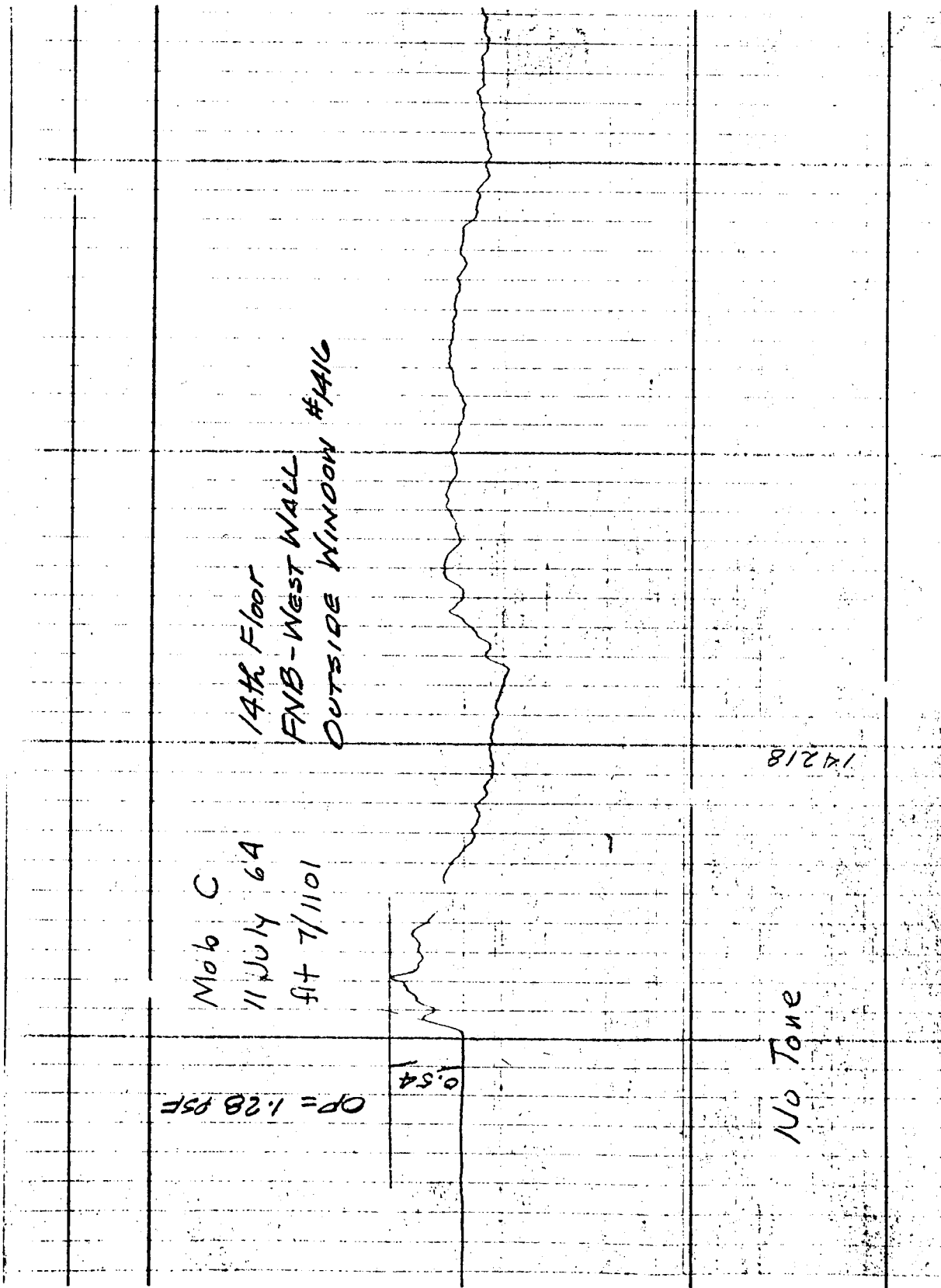
It would be impossible to predict accurately what overpressures might result at ground level in an area with many large buildings, without a careful geometrical analysis. The prediction of window stresses would be similarly difficult without considering the orientation of the adjoining structures. However, it is generally possible to predict instances in which pressure amplification can occur and to predict roughly the nominal resultant pressures.











APPENDIX C1

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
2/3	1/1	F-104	051°	36	1.5	0.76	—	—	- No Record
2/4	1/2			37		0.76	—	—	
2/5	1/3			37		0.94	0.41	0.34	
	2/4			36		0.57	—	0.39	
	3/5			37		0.77	0.83	0.43	
2/6	1/6			36		0.69	1.06	1.28	
	2/7			36		1.17	0.87	0.80	
	3/8			36		1.03	0.74	0.69	
	4/9			37		0.85	0.83	0.72	
2/7	1/10			37		1.30	0.98	0.77	
	2/11			37		0.85	1.03	0.77	
	3/12			38		0.99	0.83	0.86	
	4/13			38		0.89	0.92	0.53	
	5/14			38		0.73	0.78	0.56	
2/8	1/15			36		0.84	1.02	1.22	
	2/16					1.19	0.69	0.81	
	3/17					0.93	0.88	0.50	
	4/18					0.97	0.84	0.49	
	5/19					0.69	1.43	0.69	
	6/20			36		1.00	0.89	0.84	
2/9	1/21			37.5		0.79	0.67	—	
	2/22			38		0.81	0.62	0.64	
	3/23			37.6		1.16	0.95	0.72	
	4/24			38		0.84	0.57	0.79	
	5/25			38		0.88	0.74	0.96	
	6/26	F-104	051°	38	1.5	0.83	0.54	0.58	

WEEKLY SUMMARY OF FREE GROUND OVERPRESSURES
Oklahoma City - 1964

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
2/10	1/27	F-104	051°	38	1.5	1.00	0.67	—	No Record
	2/28			38		0.90	0.68	0.45	
	3/29			32		1.09	1.46	0.73	
	4/30					1.34	1.25	1.03	
	5/31					0.72	2.29	1.02	
	6/32					1.02	1.11	0.91	
	7/33					0.90	1.11	0.93	
	8/34					0.68	1.33	0.91	
2/11	1/35					1.09	0.97	0.61	
	2/36					—	0.98	0.81	
	3/37					0.96	1.04	0.89	
	4/38				1.5	1.11	1.30	0.92	
	5/39				1.8	1.19	1.15	0.90	
	6/40			32		0.81	1.17	0.65	
	7/41			30		1.09	1.15	1.10	
	8/42			30	1.8	0.66	1.52	—	
2/12	1/43			32	1.5	0.68	0.51	0.24	
	2/44					0.87	0.52	0.57	
	3/45					0.68	1.51	0.49	
	4/46					1.40	0.70	0.79	
2/13	1/47					0.81	0.66	—	
	2/48			32		1.02	0.87	—	
	3/49			30		1.77	0.92	0.72	
	4/50					1.02	0.97	0.76	
	5/51					1.51	1.89	1.61	
	6/52			30		1.36	2.28	0.80	
	7/53			32		1.11	1.22	1.12	
	8/54					1.24	0.92	0.70	
2/14	1/55					0.96	1.18	0.89	
	2/56					—	1.23	0.96	
	3/57					1.07	0.84	0.75	
	4/58					1.36	0.70	0.71	
	5/59					1.31	—	1.38	
	6/60					1.22	—	1.44	
	7/61					1.03	0.82	0.62	
	8/62					0.87	0.83	0.47	
2/15	1/63					1.23	1.35	0.47	
	2/64					1.10	1.11	0.71	
	3/65			32		1.93	1.19	0.48	
	4/66			35		1.18	0.74	0.55	
	5/67			32		0.81	0.52	0.30	
	6/68			32		0.58	0.67	0.66	
2/16	1/69			35		0.92	—	0.45	
	2/70			32		1.14	0.90	0.54	
	3/71			32		1.24	0.89	0.56	
	4/72			32		1.26	0.86	0.53	
	5/73			31		1.04	1.13	0.52	
	6/74					1.12	1.31	0.68	
	7/75					1.43	0.82	0.78	
	8/76	F-104	051°	31	1.5	1.67	1.03	0.68	

STRUCTURAL RESPONSE TO SONIC BOOMS

APPENDIX C1

WEEKLY SUMMARY OF FREE GROUND OVERPRESSURES
Oklahoma City - 1964

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
2/17	1/97	F-104	051°	35	1.5	1.25	1.55	0.66	
	2/98			32		1.31	0.92	0.92	
	3/99			31		1.42	1.46	0.94	
	4/80			32		1.40	1.31	1.11	
	5/81					1.08	0.87	0.78	
	6/82					1.33	0.71	0.81	
	7/83			32		0.95	0.76	0.62	
	8/84			31		0.97	0.74	0.32	
2/18	1/85			35		1.32	0.98	0.99	
	2/86			35	1.5	1.09	1.33	1.13	
	3/87			32	1.8	1.88	0.76	0.78	
	4/88				1.5	1.32	0.91	0.70	
	5/89					1.70	1.01	0.32	
	6/90					0.75	1.95	0.69	
	7/91					1.21	1.23	0.59	
	8/92		051°	32		1.40	1.05	0.72	
2/19	1/93		231°	35		0.58	1.74	0.42	
	2/94			35		1.10	0.74	0.42	
	3/95			32		1.03	0.91	0.42	
	4/96			32		1.18	1.35	0.37	
	5/97			31		1.18	1.38	0.55	
	6/98			31		1.65	0.90	0.38	
	7/99			32		1.22	0.86	0.66	
2/20	1/100					1.17	1.31	0.48	
	2/101					1.00	1.99	0.41	
	3/102					1.17	0.90	0.45	
	4/103					0.82	1.24	0.37	
	5/104					0.67	1.25	0.31	
	6/105			32		0.73	0.96	0.19	
	7/106		231°	35		0.71	0.39	0.56	
2/21	1/107		051°	32		—	1.00	0.70	No Record
	2/108					1.36	1.19	0.91	
	3/109					1.28	1.18	1.01	
	4/110					1.15	1.34	0.90	
	5/111					1.13	0.74	0.80	
	6/112					1.78	0.68	0.62	
	7/113					0.89	0.46	1.23	
	8/114			32		0.87	0.65	1.08	
2/22	1/115			35		0.87	1.05	0.80	
	2/116			35		1.02	0.97	0.81	
	3/117			32		—	1.32	0.92	
	4/118					1.17	1.25	0.90	
	5/119					1.36	1.06	1.00	
	6/120					1.34	0.93	0.53	
	7/121					1.15	0.72	0.90	
	8/122			32		1.60	0.76	0.27	
2/23	1/123			35		1.25	0.98	0.71	
	2/124			35		1.06	1.04	0.76	
	3/125			32		1.40	1.55	0.95	
	4/126					1.15	1.34	1.17	
	5/127					1.30	1.36	1.13	
	6/128					1.06	1.60	0.98	
	7/129					0.89	0.93	0.89	
	8/130	F-104	051°	32	1.5	1.34	0.69	0.47	

STRUCTURAL RESPONSE TO SONIC BOOMS

APPENDIX C1

WEEKLY SUMMARY OF FREE GROUND OVERPRESSURES
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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
2/24	1/131	F-104	051°	35	1.5	0.96	0.87	—	No Record
	2/132			35		0.90	0.83	0.52	
	3/133			32		1.03	0.93	0.57	
	4/134					1.22	0.90	1.04	
	5/135					1.37	0.93	1.42	
	6/136			32	1.5	0.97	1.49	0.57	
	7/137			34	1.8	0.99	1.03	1.32	
	8/138	F-104	051°	32	1.5	1.52	0.74	0.63	
2/25	ALL	FLIGHTS	CANCELLED						
2/26	1/139	F-104	051°	35	1.5	1.05	1.04	1.03	
	2/140			35		0.92	1.02	0.69	
	3/141			32		0.92	0.95	0.78	
	4/142			32		1.12	1.24	1.19	
	5/143			31		1.28	1.24	1.08	
	6/144			31		1.31	0.92	1.40	
	7/145			30		1.37	1.25	1.43	
	8/146			30		1.17	1.49	0.89	
2/27	1/147			32		0.89	0.87	0.54	
	2/148			32		0.84	1.15	0.83	
	3/149			31		0.87	1.05	1.13	
	4/150			31		0.93	1.35	1.04	
	5/151			30		1.06	1.12	0.58	
	6/152			30		1.47	2.35	0.97	
	7/153			32		1.69	1.89	0.54	
	8/154			32		1.63	1.06	0.70	
2/28	1/155					1.02	1.10	0.81	
	2/156					0.90	1.08	0.71	
	3/157					0.80	0.84	0.85	
	4/158			32		0.88	0.96	0.59	
	5/159			31		0.68	0.97	0.92	
	6/160			31		0.76	1.05	0.67	
	7/161			31		1.11	1.03	2.16	
	8/162			30		1.28	1.03	0.46	
2/29	1/163			35		0.82	0.97	0.99	
	2/164			35		0.85	0.93	0.70	
	3/165			35		0.79	0.88	1.00	
	4/166			33		1.45	1.13	1.73	
	5/167			31		0.98	1.30	1.18	
	6/168			31		1.40	1.62	0.81	
	7/169			35		1.60	1.83	0.20	
	8/170			35		0.67	1.01	0.73	
3/1	1/171			32		0.99	1.28	1.10	
	2/172					0.96	1.34	0.79	
	3/173					1.15	0.87	0.69	
	4/174					0.70	1.06	0.88	
	5/175					0.73	0.94	0.98	
	6/176	F-104	051°	32	1.5	0.90	1.03	1.21	

STRUCTURAL RESPONSE TO SONIC BOOMS

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WEEKLY SUMMARY OF FREE GROUND OVERPRESSURES
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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
3/2	1/177	F-104	051°	35	1.5	0.80	0.70	1.17	
	2/178					1.34	1.35	0.50	
	3/179					1.11	0.88	0.79	
	4/180			35		1.24	1.03	1.16	
	5/181			32		1.30	0.79	0.68	
	6/182					1.47	1.07	0.75	
3/3	1/183					0.99	1.15	0.72	
	2/184					0.76	1.19	0.67	
	3/185					0.56	1.12	0.93	
	4/186					0.50	1.40	0.92	
	5/187					1.48	0.80	0.63	
	6/188					1.55	0.80	0.74	
	7/189					1.05	1.80	0.38	
	8/190					1.01	0.92	0.87	
3/4	1/191					—	0.71	0.46	No Record
	2/192					0.80	0.65	0.31	
3/5	1/193					0.87	—	0.87	
	2/194			32		0.91	1.01	0.91	
	3/195			30	1.5	1.13	1.50	0.85	
	4/196				1.7	1.07	1.15	1.05	
	5/197				1.5	0.97	1.14	0.88	
	6/198				1.7	0.87	1.49	0.86	
	7/199				1.5	0.75	1.23	0.96	
	8/200				1.7	1.24	1.32	0.79	
3/6	1/201				1.5	0.75	0.95	0.67	
	2/202				1.7	1.40	1.13	0.90	
	3/203				1.5	0.67	0.99	1.02	
	4/204				1.7	1.20	1.03	0.88	
	5/205				1.5	0.93	1.07	0.79	
	6/206				1.7	1.34	1.14	0.67	
	7/207				1.5	1.82	0.74	0.50	
	8/208				1.7	1.02	1.12	0.80	
3/7	1/209				1.7	0.32	0.37	—	Note: all flights
	2/210				1.7	0.46	0.45	0.28	this date were
	3/211				1.5	—	0.50	0.78	8 nautical mi.
	4/212				1.5	0.56	0.69	0.41	north of normal
	5/213				1.5	0.54	0.71	—	flight path.
	6/214				1.7	0.64	0.41	0.55	
	7/215				1.5	0.58	0.31	0.28	
	8/216	F-104	051°	30	1.7	0.63	0.80	0.30	
3/8	ALL	FLIGHTS	CANCELLED						

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
3/9	1/217	F-104	051°	30	1.5	0.83	0.68	0.38	
	2/218			30	1.7	1.13	1.02	0.61	
	3/219			29	1.5	0.77	0.69	0.25	
	4/220			29	1.7	0.97	0.43	0.24	
3/10	1/221				1.5	1.15	1.24	0.88	
	2/222				1.7	1.31	1.07	0.64	
	3/223				1.5	1.31	0.94	0.66	
	4/224				1.7	1.25	1.27	0.75	
	5/225				1.5	1.12	1.31	0.62	
	6/226				1.7	1.22	1.26	1.21	
	7/227				1.5	0.83	0.93	1.07	
	8/228				1.7	1.44	1.20	0.57	
3/11	1/229				1.5	1.42	0.82	0.72	
	2/230				1.7	0.88	1.04	0.75	
	3/231				1.5	1.20	0.87	0.34	
	4/232				1.7	1.40	1.61	1.11	
	5/233				1.5	1.66	1.71	0.47	
	6/234				1.7	1.13	0.99	1.13	
	7/235				1.5	0.65	1.07	0.46	
	8/236				1.7	0.81	1.45	1.07	
3/12	1/237				1.5	1.29	0.98	1.06	
	2/238				1.7	1.09	1.17	0.88	
	3/239				1.5	1.29	1.22	0.82	
	4/240				1.7	1.44	1.22	0.85	
	5/241				1.5	0.86	1.27	1.10	
	6/242				1.7	0.94	1.50	1.81	
	7/243				1.5	1.18	1.15	1.00	
	8/244				1.7	1.15	1.43	1.42	
3/13	1/245				1.5	0.91	1.20	0.78	
	2/246				1.7	1.80	0.87	0.64	
	3/247				1.5	1.04	1.70	0.54	
	4/248				1.7	1.29	—	0.33	No Record
	5/249				1.5	1.24	1.65	0.90	
	6/250				1.7	0.82	1.50	1.10	
	7/251				1.5	0.99	0.66	1.08	
	8/252				1.5	1.37	1.16	0.78	
3/14	1/253				1.5	1.15	1.88	0.57	
	2/254				1.7	1.37	1.48	1.19	
	3/255				1.5	1.09	0.90	0.78	
	4/256				1.7	1.15	1.34	1.12	
	5/257				1.5	1.32	1.13	0.60	
	6/258				1.7	0.75	2.25	0.87	
	7/259				1.5	2.24	2.10	2.03	
	8/260			29	1.7	0.78	1.69	—	
3/15	1/261			30	1.5	0.82	1.15	0.82	
	2/262				1.7	1.19	1.24	0.87	
	3/263				1.5	1.30	1.34	1.11	
	4/264				1.7	1.28	2.20	1.96	
	5/265				1.5	1.47	1.46	0.96	
	6/266				1.7	0.72	1.41	1.69	
	7/267	F-104	051°	30	1.5	0.94	2.22	1.25	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
3/16	1/268	F-104	051°	30	1.5	1.22	1.45	0.74	
	2/269			30	1.7	1.27	1.42	0.92	
	3/270			33	1.5	1.01	1.93	0.93	
	4/271			33	1.7	1.14	1.19	1.06	
	5/272			35	1.5	1.58	1.13	0.85	
	6/273			35	1.7	0.73	1.11	1.76	
3/17	1/274			29	1.5	1.17	0.99	0.55	
	2/275				1.7	0.96	1.47	1.01	
	3/276				1.5	1.48	0.99	0.60	
	4/277			29	1.7	0.98	1.29	0.72	
	5/278			28	1.5	1.09	1.16	0.55	
	6/279				1.7	1.11	2.04	1.04	
	7/280				1.5	1.07	1.10	0.55	
	8/281			28	1.7	1.23	1.18	0.77	
3/18	1/282			29	1.5	1.19	1.42	1.08	
	2/283			29	1.7	1.15	1.31	0.74	
	3/284			28	1.5	1.03	1.17	1.08	
	4/285			27	1.7	1.25	1.58	1.18	
	5/286				1.5	1.60	1.72	0.62	
	6/287				1.5	1.46	1.34	0.90	
	7/288				1.5	0.99	1.80	1.21	
	8/289	F-104	051°	27	1.7	1.11	1.27	1.52	
3/19	ALL	FLIGHTS	CANCELLED						
3/20	1/290	F-104	051°	27	1.7	0.88	1.18	0.17	
	2/291			27	1.7	0.85	1.51	0.23	
	3/292			27	1.7	0.98	1.37	1.27	
	4/293			29	1.55	0.78	0.98	0.67	
	5/294			27	1.5	1.51	1.10	0.40	
	6/295				1.5	0.90	1.48	0.91	
3/21	1/296					1.23	1.17	0.70	
	2/297			27		1.19	1.24	0.78	
	3/298			26		1.09	1.43	0.66	
	4/299			27		1.15	0.89	0.57	
	5/300			26	1.5	1.25	0.92	0.43	
	6/301			30	1.7	2.10	1.65	0.56	
	7/302			29	1.7	1.10	1.40	0.85	
3/22	1/303			30	1.5	1.19	1.43	1.08	
	2/304				1.7	1.00	1.10	1.23	
	3/305				1.7	1.51	1.61	0.88	
	4/306				1.5	1.51	1.91	1.23	
	5/307				1.5	1.16	—	0.93	No Record
	6/308				1.7	1.42	1.39	—	
	7/309				1.5	0.74	1.09	0.55	
	8/310	F-104	051°	30	1.7	1.09	1.07	0.71	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
3/30	1/356	F-104	051°	30	1.5	0.94	1.23	1.20	
	2/357				1.7	0.77	1.43	0.89	
	3/358				1.5	1.10	0.89	0.56	
	4/359				1.7	1.00	1.58	0.74	
	5/360					1.04	0.75	0.25	
	6/361					0.58	1.17	—	No Record
	7/362					1.75	0.75	0.84	
	8/363			30	1.7	0.66	0.65	0.39	
3/31	1/364			29	1.5	0.99	1.17	—	
	2/365				1.7	1.24	1.30	—	
	3/366				1.5	1.22	1.35	—	
	4/367				1.8	1.06	1.20	—	
	5/368				1.5	1.02	1.21	—	
	6/369				1.7	1.20	0.90	0.94	
	7/370				1.5	1.14	1.23	0.84	
	8/371			29	1.7	1.02	2.09	1.42	
4/1	1/372			28	1.5	1.30	1.09	1.02	
	2/373				1.7	1.77	1.20	1.18	
	3/374				1.5	1.19	1.35	1.18	
	4/375				1.7	1.09	1.16	0.33	
	5/376				1.5	1.20	0.97	0.51	
	6/377				1.7	1.20	1.10	0.76	
	7/378				1.5	1.43	1.91	1.07	
	8/379				1.7	0.81	0.92	0.49	
4/2	1/380				1.5	0.94	0.94	0.60	
	2/381				1.7	1.04	1.59	0.80	
	3/382				1.7	1.13	1.74	0.69	
	4/383				1.7	1.17	1.46	1.70	
4/3	1/384				1.5	1.56	1.11	0.64	
	2/385				1.7	1.03	0.93	1.04	
	3/386				1.5	1.30	1.08	1.33	
	4/387				1.7	1.09	0.89	0.99	
	5/388				1.7	0.97	1.67	0.79	
	6/389				1.7	1.22	1.11	0.55	
	7/390				1.5	1.35	0.80	0.76	
	8/391	F-104	051°	28	1.7	0.72	0.93	1.78	
4/4	ALL FLIGHTS CANCELLED								
4/5	1/392	F-104	051°	28	1.7	1.53	0.91	0.25	
	2/393					1.03	1.59	0.67	
	3/394					0.92	0.84	0.64	
	4/395				1.7	1.03	1.18	0.74	
	5/396				1.5	0.69	0.66	0.81	
	6/397				1.7	1.93	1.00	0.74	
	7/398				1.5	0.90	1.10	0.45	
	8/399	F-104	051°	28	1.7	2.26	1.12	1.04	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
4/6	1/400	F-104	051°	28	1.5	1.11	1.42	1.02	
	2/401				1.7	1.28	1.14	1.08	
	3/402				1.5	0.96	2.24	1.17	
	4/403				1.7	1.32	1.23	0.66	
	5/404				1.5	0.96	1.73	1.26	
	6/405				1.7	1.11	1.40	0.59	
	7/406				1.5	0.76	0.53	0.79	
	8/407				1.7	1.27	1.28	1.06	
4/7	1/408				1.5	1.39	1.98	0.55	
	2/409				1.7	1.57	0.99	0.86	
	3/410				1.5	1.16	—	0.82	No Record
	4/411				1.7	1.15	—	0.94	
	5/412				1.5	1.11	1.94	2.54	
	6/413				1.7	1.45	1.90	1.48	
	7/414				1.5	1.64	1.46	1.15	
	8/415				1.7	1.70	1.33	0.83	
4/8	1/416				1.5	1.09	1.16	0.62	
	2/417				1.7	1.24	1.35	1.13	
	3/418				1.5	1.26	1.33	1.08	
	4/419				1.7	0.86	1.39	1.04	
	5/420				1.5	1.22	1.14	0.84	
	6/421				1.7	0.99	1.77	0.87	
	7/422				1.5	1.59	1.65	0.83	
	8/423				1.7	1.38	1.27	1.05	
4/9	1/424				1.5	—	1.04	0.83	
	2/425				1.7	1.48	1.37	0.91	
	3/426				1.5	1.16	2.34	1.04	
	4/427				1.5	1.30	1.14	—	
	5/428				1.5	1.75	2.30	0.72	
	6/429				1.7	1.01	1.61	1.06	
	7/430				1.5	1.12	2.54	0.31	
	8/431					0.90	1.14	0.54	
4/10	1/432					1.06	1.44	0.78	
	2/433					1.35	1.44	0.87	
	3/434					1.14	1.40	1.70	
	4/435					0.93	2.15	1.13	
	5/436					0.97	1.52	0.51	
	6/437	F-104		28	1.5	0.85	1.98	1.24	
	7/438	F-101		33	1.4	1.47	2.18	2.61	
	8/439			33		1.62	2.00	0.73	
4/11	1/440			34		1.83	1.21	1.00	
	2/441			34		2.26	1.19	1.00	
	3/442	F-101		34		1.49	0.93	1.18	
	4/443	F-104		28	1.4	1.79	1.21	1.32	
	5/444				1.5	1.02	1.08	0.72	
	6/445					1.10	1.30	0.85	
	7/446					1.62	1.86	1.04	
4/12	1/447					1.21	1.17	0.66	
	2/448					0.99	1.37	0.67	
	3/449					1.05	1.28	1.28	
	4/450					0.88	0.78	1.26	
	5/451					1.25	1.11	1.34	
	6/452					1.36	1.43	0.88	
	7/453					0.86	1.17	1.25	
	8/454	F-104	051°	28	1.5	0.69	1.11	0.40	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
4/13	1/455	F-104	051°	28	1.5	1.36	1.02	0.85	
	2/456					1.34	1.35	0.91	
	3/457					1.36	1.34	0.99	
	4/458					1.44	1.35	0.62	
	5/459					1.55	1.71	1.45	
	6/460					1.17	1.93	0.61	
	7/461					1.44	2.14	0.52	
	8/462					1.51	2.47	0.51	
4/14	1/463					1.15	1.11	1.33	
	2/464					0.97	—	2.06	No Record
	3/465					1.01	1.30	1.56	
	4/466					0.93	0.89	1.49	
	5/467					1.01	1.97	0.61	
	6/468					1.71	0.67	1.26	
	7/469					1.52	0.80	0.90	
	8/470					1.32	0.87	1.33	
4/15	1/471					0.83	1.31	0.87	
	2/472					1.02	1.38	0.63	
	3/473					1.25	1.09	0.61	
	4/474					0.97	2.32	—	
4/16	1/475					1.00	1.13	0.87	
	2/476					0.95	0.66	0.97	
	3/477					0.85	1.53	0.52	
	4/478					0.87	1.55	1.02	
	5/479					0.83	1.02	0.31	
	6/480					0.75	1.53	0.70	
	7/481					0.92	1.15	0.40	
	8/482					1.16	1.10	0.50	
4/17	1/483					1.26	1.96	0.44	
	2/484					1.13	1.51	0.49	
	3/485					1.13	1.16	1.06	
	4/486					1.75	0.51	0.68	
	5/487					0.92	1.31	1.39	
	6/488					0.84	0.95	0.49	
4/18	1/489					0.93	1.37	—	
	2/490					1.03	1.80	—	
	3/491					0.89	1.32	—	
	4/492					0.37	1.21	—	
	5/493					0.95	1.39	0.81	
	6/494					0.66	0.78	0.96	
	7/495					1.09	1.04	0.55	
	8/496					1.05	1.19	0.51	
4/19	1/497					0.87	2.52	0.83	
	2/498					1.05	1.89	0.69	
	3/499					1.03	1.00	0.55	
	4/500					1.47	1.73	0.56	
	5/501					0.95	1.11	0.43	
	6/502					0.97	1.26	0.55	
	7/503					1.55	0.63	0.52	
	8/504	F-104	051°	28	1.5	1.03	1.71	0.72	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
4/20	1/505	F-104	051°	28	1.5	0.95	1.15	—	No Record
	2/506					1.22	1.58	—	
	3/507					0.57	0.69	—	
	4/508					0.87	0.72	—	
	5/509					1.12	1.08	—	
	6/510					1.14	0.48	—	
	7/511					1.14	1.48	—	
4/21	1/512					1.32	1.20	0.88	
	2/513					0.98	1.44	0.72	
	3/514					1.36	1.01	1.04	
	4/515					1.20	1.18	0.87	
	5/516					1.81	0.90	0.67	
	6/517					1.42	1.35	2.15	
4/22	1/518					1.25	0.72	0.41	
	2/519					0.96	1.83	1.81	
	3/520					0.92	0.79	1.25	
	4/521					1.49	1.34	0.86	
4/23	1/522					1.05	1.26	1.16	
	2/523					0.80	1.17	1.02	
	3/524					0.97	0.79	0.78	
	4/525					1.13	0.87	0.83	
	5/526					0.88	0.67	0.56	
	6/527					0.73	1.23	0.67	
	7/528					1.11	1.14	0.43	
	8/529					1.41	1.04	0.91	
4/24	1/530					0.64	1.25	0.48	
	2/531					0.79	1.69	0.60	
	3/532					0.81	1.23	0.57	
	4/533					1.13	1.69	0.63	
	5/534					1.21	0.92	0.82	
	6/535					1.09	0.99	0.89	
	7/536					1.30	1.54	0.95	
	8/537					0.89	0.83	0.69	
4/25	1/538					1.50	1.10	1.85	
	2/539					1.54	1.39	1.34	
	3/540					1.54	1.10	0.57	
	4/541					1.34	0.83	0.78	
	5/542					0.93	1.19	0.58	
	6/543					1.34	1.63	0.70	
4/26	1/544					1.36	1.08	0.54	
	2/545					1.20	1.26	0.77	
	3/546					0.68	0.76	0.34	
	4/547	F-104	051°	28	1.5	1.00	0.90	0.51	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
4/27	1/548	F-104	051°	28	1.5	1.24	0.97	1.55	
	2/549					1.24	1.57	0.75	
	3/550					1.42	1.46	0.79	
	4/551					0.55	1.25	1.44	
	5/552					1.08	0.64	0.64	
	6/553					1.80	1.10	0.75	
	7/554					1.48	1.06	0.53	
	8/555		051°			0.97	0.71	0.94	
4/28	1/556		310°			1.29	1.23	1.56	
	2/557					1.37	1.61	1.67	
	3/558					0.76	2.79	1.25	
	4/559		310°			1.81	1.64	1.33	
	5/560		130°			0.72	0.80	1.36	
	6/561					1.29	1.61	1.77	
	7/562					1.01	2.34	1.50	
	8/563		130°	28	1.5	0.72	0.12	1.28	
4/29	1/564		170°	35	2.0	1.21	1.31	0.97	
	2/565			41		1.07	0.91	0.98	
	3/566			41		0.77	1.04	1.15	
	4/567		170°	41	2.0	0.64	1.17	1.17	
	5/568		350°	28	1.5	2.00	1.24	2.03	
	6/569		350°	28		1.55	1.70	1.29	
4/30	1/570		051°			1.04	1.52	0.71	
	2/571					0.68	1.18	0.68	
	3/572					0.70	1.30	1.57	
	4/573					0.83	1.34	0.85	
	5/574					1.60	1.36	1.14	
	6/575					0.73	1.21	1.48	
	7/576					0.80	1.05	1.57	
	8/577			28		2.72	1.07	1.43	
5/1	1/578			24		1.41	1.42	0.88	
	2/579			24		0.97	1.05	0.97	
	3/580			24		1.16	1.22	0.84	
	4/581			28	1.5	1.00	1.56	1.05	
	5/582			23	1.3	0.74	0.62	0.30	
	6/583					0.67	0.76	0.30	
	7/584					1.34	1.09	2.47	
	8/585					1.39	1.56	0.58	
5/2	1/586				1.3	—	1.22	1.31	No Record
	2/587				1.4	—	1.33	1.05	
	3/588				1.3	—	2.48	1.26	
	4/589				1.4	—	1.66	1.42	
	5/590				1.3	1.21	1.33	0.88	
	6/591				1.3	1.07	1.66	1.69	
	7/592				1.4	1.07	1.54	1.54	
	8/593			23	1.4	1.05	1.75	1.10	
5/3	1/594			24	1.3	1.49	0.87	0.19	
	2/595			24	1.4	1.63	1.19	1.01	
	3/596			27	1.3	0.93	1.01	0.69	
	4/597					0.96	0.69	0.42	
	5/598					1.63	0.48	0.74	
	6/599					1.26	*	*	*No Boom
	7/600	F-104	051°	27	1.3	0.93	1.83	2.56	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
5/4	1/601	F-104	051°	24	1.4	1.28	0.94	0.65	
	2/602				1.4	1.72	1.28	0.49	
	3/603				1.4	0.98	1.01	0.73	
	4/604				1.5	1.63	1.14	1.07	
	5/605				1.4	1.23	1.17	0.37	
	6/606				1.5	1.14	1.30	0.78	
	7/607				1.4	0.88	0.73	0.80	
	8/608				1.4	0.95	1.55	0.72	
5/5	1/609				1.4	1.94	1.01	1.30	
	2/610				1.5	0.65	1.38	1.04	
	3/611					1.29	1.57	1.00	
	4/612					0.97	0.71	1.13	
	5/613					2.19	1.41	0.95	
	6/614					0.67	0.90	0.45	
	7/615			24	1.5	1.62	0.99	2.07	
5/6	1/616			23	1.3	1.33	1.07	0.39	
	2/617			24	1.6	1.43	1.05	0.69	
	3/618			23	1.3	1.36	1.53	0.41	
	4/619				1.3	1.26	1.19	1.85	
	5/620				1.3	1.67	1.72	0.95	
	6/621				1.5	1.24	1.87	1.19	
	7/622				1.3	1.07	1.28	1.02	
	8/623			23	1.5	1.16	0.59	1.32	
5/7	1/624			21	1.5	1.40	1.10	0.71	
	2/625				1.5	1.21	1.92	0.92	
	3/626				1.5	0.77	1.69	0.40	
	4/627				1.4	1.57	1.17	0.25	
	5/628				1.4	1.65	3.70	0.94	
	6/629			21	1.4	1.94	1.33	1.28	
5/8	1/630			30	1.7	0.99	1.92	1.40	
	2/631				1.7	1.04	0.94	0.61	
	3/632				1.5	1.49	2.78	1.70	
	4/633				1.7	0.99	0.73	0.69	
	5/634				1.5	0.91	1.35	1.00	
	6/635				1.7	1.92	1.68	1.12	
	7/636				1.5	0.72	1.47	0.82	
	8/637				1.7	0.74	0.90	0.35	
5/9	1/638				1.5	1.04	1.08	0.89	
	2/639				1.7	1.32	1.02	1.09	
	3/640				1.5	1.15	1.33	1.67	
	4/641				1.7	1.15	0.88	0.93	
	5/642				1.5	0.86	1.31	0.75	
	6/643				1.5	0.86	1.58	0.86	
	7/644				1.7	1.19	1.02	1.19	
5/10	1/645				1.5	0.52	0.76	2.04	
	2/646				1.7	1.01	2.41	0.42	
	3/647				1.7	0.51	0.39	0.50	
	4/648	F-104	051°	30	1.5	1.34	0.74	1.26	

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5/11	1/649	F-104	051°	30	1.7	1.02	1.07	0.85	
	2/650					1.11	1.23	0.87	
	3/651					0.93	1.14	0.82	
	4/652					1.05	1.31	1.09	
	5/653				1.7	1.02	1.02	0.55	
	6/654				1.5	1.14	1.37	0.59	
	7/655				1.7	1.39	0.98	0.66	
5/12	1/656				1.5	0.69	0.42	0.34	
	2/657				1.7	0.54	0.58	0.58	
	3/658				1.5	1.17	1.11	0.54	
	4/659				1.5	1.12	0.92	—	No Record
	5/660				1.5	1.20	0.81	1.00	
	6/661				1.7	1.16	1.08	0.66	
	7/662				1.5	1.21	1.41	0.33	
	8/663	F-104	051°	30	1.7	1.10	1.16	0.47	
5/13	ALL	FLIGHTS	CANCELLED						
5/14	1/664	F-104	051°	30	1.5	0.79	1.00	0.50	
	2/665				1.7	0.97	1.11	0.85	
	3/666				1.5	0.92	0.93	0.74	
	4/667				1.7	1.80	1.63	1.28	
	5/668				1.5	0.79	0.57	0.54	
	6/669				1.7	1.05	0.93	1.08	
	7/670				1.5	1.12	0.81	0.70	
	8/671				1.7	1.40	0.45	0.28	
5/15	1/672				1.7	1.18	0.73	0.75	
	2/673				1.7	0.92	0.30	0.15	
	3/674	F-104		30	1.7	1.65	0.94	0.75	
	4/675	F-101		38	1.4	1.23	1.52	1.49	
5/16	1/676	F-104		30	1.5	0.99	1.28	0.88	
	2/677				1.7	0.79	0.92	0.81	
	3/678				1.5	1.08	1.39	0.50	
	4/679	F-104		30	1.7	1.08	1.40	0.70	Last F-104 flight
	5/680	F-101		38	1.4	1.24	1.39	1.08	
	6/681					1.01	0.94	1.01	
	7/682					1.42	2.53	1.99	
	8/683					2.01	2.08	1.25	
5/17	1/684					1.24	2.44	1.61	
	2/685					1.22	1.52	1.99	
	3/686					1.22	1.60	0.83	
	4/687					1.19	2.94	1.40	
	5/688					0.99	2.49	2.49	
	6/689			38		0.95	1.30	1.66	
	7/690	F-101	051°	40	1.4	1.65	1.77	—	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
5/18	1/691	F-101	051°	38	1.4	1.01	1.00	0.19	
	2/692			38		1.23	1.25	1.16	
	3/693			40		1.69	1.16	2.12	
	4/694			40		1.29	1.27	1.92	
	5/695			42		0.96	0.96	0.06	
	6/696					1.00	1.32	2.63	
	7/697					1.39	1.23	—	No Record
	8/698			42		1.05	0.94	1.31	
5/19	1/699			46		0.89	1.05	1.20	
	2/700					1.10	1.10	1.59	
	3/701					1.28	2.84	0.71	
	4/702					—	1.75	1.83	
	5/703					1.01	1.52	2.36	
	6/704					0.87	1.94	0.94	
	7/705					1.42	1.21	0.81	
	8/706				1.4	0.94	0.79	1.86	
5/20	1/707				1.5	1.09	1.11	0.92	
	2/708					1.07	1.02	1.28	
	3/709					1.11	1.67	1.54	
	4/710					1.16	1.18	1.22	
	5/711					1.00	1.40	1.21	
	6/712					0.89	1.71	1.56	
	7/713					0.96	1.12	1.20	
	8/714					1.22	0.64	0.77	
5/21	1/715					1.27	1.46	1.96	
	2/716					1.36	1.19	1.31	
	3/717					1.26	1.41	1.27	
	4/718					1.02	1.28	1.06	
	5/719					1.04	1.85	1.10	
	6/720					1.29	1.57	0.90	
	7/721					1.03	0.77	0.58	
	8/722					1.18	1.32	2.22	
5/22	1/723					1.22	1.25	1.49	
	2/724			46		0.93	0.98	0.89	
	3/725			44		1.79	1.11	0.79	
	4/726					1.18	1.31	1.52	
	5/727					1.97	2.14	0.58	
	6/728					1.16	0.98	1.78	
	7/729					1.43	1.16	0.39	
	8/730					0.82	1.47	1.53	
5/23	1/731					—	1.22	0.90	
	2/732					1.09	2.49	1.01	
	3/733					1.21	1.33	1.25	
	4/734					1.76	1.58	2.03	
	5/735					1.62	3.20	0.87	
	6/736			44		1.35	1.60	1.81	
	7/737			46		2.42	1.18	0.70	
	8/738			46		0.93	0.98	1.17	
5/24	1/739			44		1.27	1.33	0.54	
	2/740					1.13	1.33	0.93	
	3/741					1.02	1.47	1.43	
	4/742					1.11	0.93	2.14	
	5/743					1.63	1.29	1.25	
	6/744	F-101	051°	44	1.5	1.15	1.51	1.24	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
5/25	1/745	F-101	051°	44	1.5	1.17	1.37	1.19	
	2/746	F-101		44	1.5	1.17	1.37	0.99	
	3/747	F-101		44	1.5	1.29	0.96	1.64	
	4/748	B-58		499	2.0	1.24	1.63	1.64	
	5/749	F-101		44	1.5	1.10	3.35	1.26	
	6/750					1.22	1.09	0.88	
	7/751					1.02	1.04	0.88	
	8/752					1.36	1.15	1.39	
5/26	1/753					1.06	1.16	1.03	
	2/754					1.13	1.05	0.56	
	3/755	F-101		44	1.5	1.03	1.72	1.14	
	4/756	B-58		499	2.0	1.44	1.77	1.13	
	5/757	F-101		44	1.5	1.59	1.52	2.58	
	6/758					1.16	1.32	1.63	
	7/759					2.14	1.16	0.79	
	8/760					1.18	1.36	1.12	
5/27	1/761					1.38	1.06	1.32	
	2/762					1.05	2.32	1.14	
	3/763	F-101		44	1.5	0.75	1.21	1.11	
	4/764	B-58		499	2.0	1.24	1.49	1.71	
	5/765	F-101		44	1.5	1.24	1.19	0.96	
	6/766			44		1.12	1.15	1.26	
	7/767			44		1.14	1.23	1.35	
	8/768			46		1.26	2.06	0.55	
5/28	1/769			44		0.79	1.22	0.87	
	2/770			44		1.16	0.82	0.65	
	3/771	F-101		44	1.5	1.30	1.26	0.90	
	4/772	B-58		499	2.0	1.46	1.63	0.98	
	5/773	F-101		44	1.5	0.88	1.06	0.79	
	6/774					1.05	0.89	1.74	
	7/775					1.14	1.67	2.02	
5/29	1/776					0.47	0.50	0.26	
	2/777					0.63	0.56	0.42	
	3/778					0.49	0.50	0.56	
	4/779					0.33	0.80	0.19	
	5/780			44		1.79	1.53	0.65	
5/30	1/781			42		1.16	2.54	1.61	
	2/782			42		1.04	1.13	1.50	
	3/783			42		0.86	1.33	0.47	
	4/784			44		0.46	1.10	0.66	
	5/785					1.57	1.02	0.33	
5/31	1/786					1.34	1.55	1.13	
	2/787					1.09	1.20	1.63	
	3/788					1.43	1.81	1.39	
	4/789					1.09	2.24	1.16	
	5/790					1.53	1.24	2.09	
	6/791					1.16	1.72	0.61	
	7/792	F-101	051°	44	1.5	1.46	1.37	0.75	

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6/1	1/793	F-101	051°	44	1.5	1.14	1.62	1.68	
	2/794					1.06	1.56	1.29	
	3/795					1.39	1.32	1.80	
	4/796					1.15	1.40	1.62	
	5/797					1.28	1.16	1.30	
	6/798					1.81	1.58	0.96	
	7/799					1.57	1.23	0.94	TWO Booms - 0.66
	8/800					1.44	1.69	1.02	Sec. Between 1st & 2nd
6/2	1/801					0.83	1.32	0.85	
	2/802			44		1.16	0.96	0.68	
	3/803			42		1.09	1.18	1.01	
	4/804					1.66	1.27	1.13	
	5/805					1.25	1.58	0.97	
	6/806					1.21	1.12	1.27	
6/3	1/807					1.75	1.75	1.71	
	2/808					1.82	1.62	1.16	
	3/809					1.91	1.18	0.89	
	4/810					1.40	1.54	2.13	
	5/811					1.14	1.40	1.09	
	6/812					1.38	1.16	0.93	
	7/813					1.21	1.54	0.96	
	8/814			42		1.68	1.60	1.25	
6/4	1/815			40		0.81	1.61	0.83	
	2/816					1.61	1.35	1.52	
	3/817					0.92	2.03	1.66	
	4/818			40		1.36	1.94	0.62	
	5/819			42		1.24	1.96	1.46	
	6/820			42		1.52	1.48	0.72	
	7/821			44		0.51	0.91	1.02	
	8/822			44		1.08	1.39	0.93	
6/5	1/823			36		1.74	1.68	1.42	
	2/824			36	1.5	1.31	1.29	1.15	
	3/825			34	1.6	1.24	1.61	1.24	
	4/826				1.6	—	1.20	0.77	No Record
	5/827				1.5	1.79	1.61	1.37	
	6/828			34	1.5	1.75	1.83	1.98	
6/6	1/829			30	1.2	0.98	1.56	1.23	
	2/830			30	1.2	1.10	1.93	0.64	
	3/831			28	1.5	1.69	3.12	1.43	
	4/832			28		2.14	1.62	1.93	
	5/833			34		1.96	2.19	1.54	
	6/834			34	1.5	1.42	2.26	2.13	
	7/835			30	1.3	1.46	1.89	1.20	
	8/836			30	1.3	1.74	2.46	2.13	
6/7	1/837			34	1.5	1.86	1.22	1.36	
	2/838					1.43	1.48	1.44	
	3/839					1.45	1.83	—	
	4/840			34		2.67	2.53	2.48	
	5/841			36		1.56	3.23	2.48	
	6/842					1.38	2.20	0.73	
	7/843					1.38	1.70	0.87	
	8/844	F-101	051°	36	1.5	1.15	2.03	0.99	

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6/8	1/845	F-101	051°	34	1.5	1.64	0.83	*	*No Boom
	2/846					1.60	1.28	1.23	
	3/847					2.74	2.16	1.19	
	4/848					1.46	1.99	2.56	
	5/849					1.21	2.84	1.01	
	6/850			34		1.00	1.50	1.67	
	7/851			36		0.94	1.67	2.40	
	8/852			36		—	1.43	1.35	No Record
6/9	1/853			33		1.27	1.41	0.90	
	2/854					1.45	1.62	0.74	
	3/855					1.10	0.95	1.16	
	4/856					0.83	1.92	1.71	
	5/857			33		1.89	2.79	1.12	
	6/858			35		1.19	1.20	0.64	
	7/859			35		0.99	2.28	1.07	
	8/860			35		1.27	1.50	1.45	
6/10	1/861			33		1.83	1.72	1.03	
	2/862			32		1.33	1.27	1.01	
	3/863			33		1.72	1.70	1.99	
	4/864					1.76	1.33	0.98	
	5/865					1.20	2.37	2.02	
	6/866					0.99	1.46	3.14	
	7/867			33		1.36	2.26	1.10	
	8/868			35		1.27	1.94	0.93	
6/11	1/869			33		2.22	3.18	1.45	
	2/870					1.38	2.03	1.35	
	3/871					—	1.38	0.62	
	4/872					1.04	1.38	1.16	
	5/873					1.04	1.38	0.66	
	6/874	F-101		33	1.5	1.36	1.93	1.91	
6/12	1/875	F-106		37	2.0	0.98	0.89	0.89	
	2/876	F-106		34	1.8	1.07	1.23	0.86	
	3/877	F-101		33	1.5	1.51	2.10	1.16	
	4/878	F-101		33	1.5	1.56	1.58	2.33	
	5/879	F-106		31	1.8	1.09	1.17	0.45	
	6/880	F-101		33	1.5	1.11	1.38	1.04	
	7/881	F-101		33	1.5	2.18	1.49	2.50	
6/13	1/882	F-101		33	1.5	1.57	1.39	1.10	
	2/883	F-106		30	1.7	—	1.71	2.36	
	3/884	F-101		33	1.5	1.87	1.23	1.19	
	4/885					1.84	1.65	1.52	
	5/886					1.45	1.69	1.15	
	6/887					1.82	1.94	1.17	
6/14	1/888					1.24	1.76	1.14	
	2/889					1.31	1.50	0.90	
	3/890					1.22	1.63	2.67	
	4/891					1.51	2.16	2.02	
	5/892					1.16	1.76	1.14	
	6/893					1.92	1.13	3.05	
	7/894					0.92	2.16	1.60	
	8/895	F-101	051°	33	1.5	1.22	2.24	2.15	

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APPENDIX C1

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
6/15	1/896	F-101	051°	33	1.5	1.43	4.38	2.04	
	2/897					1.34	1.53	1.51	
	3/898					1.32	1.81	1.35	
	4/899			33		1.32	2.38	1.20	
	5/900			37		1.23	1.64	1.44	
	6/901					0.95	1.98	0.81	
	7/902					0.91	1.31	2.06	
	8/903					1.17	1.29	1.92	
6/16	1/904					1.89	2.21	1.69	
	2/905			37		1.46	1.49	2.22	
	3/906			33		1.71	1.53	1.41	
	4/907					1.30	1.13	1.21	
	5/908					1.47	1.57	2.59	
	6/909					1.42	1.55	1.58	
6/17	1/910					1.18	2.04	1.13	
	2/911					1.69	1.20	0.95	
	3/912					1.07	1.72	1.40	
	4/913					1.30	1.44	0.69	
	5/914					1.30	2.67	0.89	
	6/915			33		0.93	0.92	1.45	
	7/916			35		1.81	2.80	1.23	
	8/917			35		1.09	1.81	0.86	
6/18	1/918			33		1.20	1.13	2.56	
	2/919					1.39	1.17	1.28	
	3/920					1.25	1.15	1.04	
	4/921			33		1.15	1.69	2.68	
	5/922			35		1.01	1.65	0.60	
	6/923					1.18	3.38	1.01	
	7/924					1.65	1.82	1.11	
	8/925					1.18	0.93	0.78	
6/19	1/926			35		1.29	1.26	1.19	
	2/927			37		1.35	2.08	1.75	
	3/928					1.58	1.54	1.28	
	4/929					0.97	1.86	2.30	
	5/930					1.18	1.60	1.91	
	6/931					1.31	1.58	2.05	
	7/932					1.72	2.49	3.16	
	8/933			37		1.36	1.64	2.25	
6/20	1/934			33		1.46	1.67	1.96	
	2/935			33		1.27	1.90	0.81	
	3/936			35		1.56	1.93	0.74	
	4/937					1.73	1.26	1.86	
	5/938					2.06	2.27	0.60	
	6/939					1.51	2.01	0.49	
	7/940					2.19	1.49	1.68	
	8/941			35		1.21	1.64	2.95	
6/21	1/942			33		1.76	1.26	0.77	
	2/943			33		2.24	1.51	1.04	
	3/944			35		1.92	2.96	0.63	
	4/945			35		1.71	1.15	0.85	
	5/946			37		1.42	1.41	1.01	
	6/947			37		1.28	1.82	1.11	
	7/948			35		1.39	3.05	1.47	
	8/949	F-101	051°	35	1.5	1.47	3.40	0.92	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
6/22	1/950	F-101	051°	33	1.5	1.64	1.56	1.04	
	2/951	F-101		33	1.5	1.40	1.32	0.76	
	3/952	F-101		35	1.5	1.64	2.27	1.02	
	4/953	B-58		43	1.85	1.68	3.79	2.05	
	5/954	F-101		39	1.5	0.89	1.19	1.86	
	6/955					1.35	2.12	1.13	
	7/956					1.13	1.73	1.22	
	8/957			39		0.67	1.17	1.33	
6/23	1/958			33		1.04	1.08	1.38	
	2/959			35		1.26	1.41	1.60	
	3/960			35		2.12	2.16	0.92	
	4/961			37		1.53	2.06	1.87	
	5/962			37		2.06	1.45	1.93	
6/24	1/963			33		1.68	1.59	1.87	
	2/964			33		1.51	1.66	1.39	
	3/965			35		1.58	1.89	2.88	
	4/966			35		1.72	1.33	2.37	
	5/967			37		1.63	1.78	1.42	
	6/968					1.35	1.85	1.27	
	7/969					2.00	1.89	1.94	
	8/970			37		3.08	2.09	—	No Record
6/25	1/971			33		1.89	1.57	1.46	
	2/972			33		2.08	1.76	1.60	
	3/973			35		1.53	1.23	2.66	
	4/974			35		1.79	1.61	1.49	
	5/975			35		1.43	1.53	1.38	
	6/976			37		2.00	1.30	1.09	
	7/977			37		2.96	2.36	2.08	
6/26	1/978			33		1.88	1.66	1.54	
	2/979			33		2.07	1.74	1.54	
	3/980			35		1.69	1.91	1.60	
	4/981			35		1.93	2.09	1.29	
	5/982			35		2.04	1.46	3.01	
	6/983			37		—	2.34	1.49	
	7/984			37		1.17	2.90	2.94	
6/27	1/985			33		1.95	1.82	0.97	
	2/986			33		1.65	1.51	0.98	
	3/987			35		1.93	1.41	1.30	
	4/988					1.60	1.77	1.43	
	5/989					1.27	2.23	1.68	
	6/990			35		1.77	1.80	1.35	
	7/991			37		1.46	2.55	1.61	
	8/992			37		1.79	0.63	1.20	
6/28	1/993			33		1.86	1.30	1.00	
	2/994			33		1.78	1.67	1.62	
	3/995			35		1.69	1.51	1.85	
	4/996			35		1.50	1.90	1.32	
	5/997			35		1.48	1.71	1.18	
	6/998			37		1.18	2.06	1.16	
	7/999	F-101	051°	37	1.5	1.72	1.04	0.97	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
6/29	1/1000	F-101	051°	33	1.5	1.37	1.60	1.58	
	2/1001					1.53	1.81	2.60	
	3/1002					1.67	1.44	1.64	
	4/1003					1.69	1.85	2.07	
	5/1004					1.66	0.82	0.95	
	6/1005			33		2.20	1.81	1.60	
	7/1006			35		1.69	1.05	1.10	
6/30	1/1007			33		1.91	2.18	1.90	
	2/1008			33		1.59	1.94	—	No Record
	3/1009			35		2.14	1.68	1.33	
	4/1010					1.63	2.20	1.31	
	5/1011					1.89	1.22	2.18	
	6/1012			35		1.91	1.33	1.76	
	7/1013			37		1.98	1.66	1.21	
	8/1014			37		1.29	1.24	1.22	
7/1	1/1015			33		1.04	1.83	1.86	
	2/1016			33		1.62	1.76	1.71	
	3/1017	F-101		35	1.5	1.22	2.13	0.81	
	4/1018	B-58		44.9	2.0	1.87	2.26	0.82	
	5/1019	F-101		35	1.5	2.16	1.18	1.48	
	6/1020			35		0.88	0.69	0.54	
	7/1021			37		0.61	0.56	0.27	
	8/1022			37		0.45	0.22	0.15	
7/2	1/1023			33		1.40	1.83	1.80	
	2/1024			33		1.15	1.46	1.66	
	3/1025			35		1.45	1.46	1.68	
	4/1026			35		1.66	3.03	2.45	
	5/1027			35		2.50	1.70	1.95	
	6/1028			37		1.66	1.42	2.44	
	7/1029			37		1.21	2.00	1.11	
	8/1030			37		1.62	1.03	0.60	
7/3	1/1031			33		1.45	2.22	1.04	
	2/1032			33		1.25	2.09	1.16	
	3/1033			35		1.45	1.79	0.94	
	4/1034			35		1.23	1.42	1.34	
	5/1035			37		1.27	1.36	2.17	
	6/1036					1.27	2.50	1.19	
	7/1037					1.34	2.19	1.77	
	8/1038			37		1.07	1.63	1.50	
7/4	1/1039			33		1.76	—	1.43	
	2/1040			33		1.58	1.35	1.08	
	3/1041			35		1.35	1.54	1.65	
	4/1042			35		1.17	1.43	1.96	
	5/1043			37		—	1.35	1.94	
	6/1044					1.23	2.03	1.46	
	7/1045					1.23	1.41	0.49	
	8/1046			37		1.76	1.77	0.84	
7/5	1/1047			33		1.86	2.00	0.35	
	2/1048			33		1.83	1.81	0.98	
	3/1049			35		1.51	1.73	1.60	
	4/1050			35		1.37	1.36	1.57	
	5/1051			37		0.96	0.95	1.16	
	6/1052					2.11	1.36	1.96	
	7/1053					1.42	1.97	1.58	
	8/1054	F-101	051°	37	1.5	1.33	1.60	1.18	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
7/6	1/1055	F-101	051°	33	1.5	1.65	1.50	0.63	
	2/1056	F-101		33	1.5	1.85	1.44	0.31	
	3/1057	F-101		35	1.5	1.07	1.09	2.00	
	4/1058	B-50		499	2.0	1.92	1.57	1.29	
	5/1059	F-101		35	1.5	1.39	1.22	1.54	
	6/1060			35		0.90	0.94	0.95	
	7/1061			37		1.16	2.46	0.95	
	8/1062			37		1.62	1.98	1.49	
7/7	1/1063			33		1.62	1.31	1.00	
	2/1064			33		1.72	2.46	0.95	
	3/1065			33		1.67	1.09	0.99	
	4/1066			35		2.04	1.09	0.92	
	5/1067			37		1.73	1.33	1.30	
	6/1068			35		2.19	1.87	1.68	
	7/1069			37		1.15	1.33	1.30	
	8/1070			37		1.13	1.46	1.38	
7/8	1/1071			33		2.62	1.11	0.99	
	2/1072					*	*	*	*No Boom
	3/1073					1.93	1.41	1.09	
	4/1074			33		1.55	2.16	2.11	
	5/1075			35		1.83	2.52	0.99	
	6/1076			35		1.60	2.07	1.04	
	7/1077			37		1.98	1.35	1.57	
	8/1078			37		1.48	0.90	2.14	
7/9	1/1079			33		1.56	1.76	1.37	
	2/1080			33		1.75	2.00	1.41	
	3/1081			35		1.42	2.24	0.73	
	4/1082					1.54	1.68	3.00	
	5/1083					1.89	1.14	1.05	
	6/1084			35		1.70	1.89	1.36	
	7/1085			37		0.97	1.12	0.85	
	8/1086			37		0.90	2.67	2.15	
7/10	1/1087			33		1.91	2.06	1.03	
	2/1088			33		2.00	1.68	0.63	
	3/1089	F-101		35	1.5	2.24	1.48	0.85	
	4/1090	B-50		499	2.0	1.96	1.27	1.29	
	5/1091	F-101		35	1.5	1.67	1.51	1.95	
	6/1092			35		1.34	1.05	3.01	
	7/1093			37		1.43	1.46	0.89	
	8/1094			37		1.29	1.03	0.92	
7/11	1/1095			33		1.58	0.70	0.49	
	2/1096			33		2.02	1.81	1.42	
	3/1097			35		1.86	0.85	0.61	
	4/1098					0.93	0.81	0.17	
	5/1099					1.41	1.68	1.70	
	6/1100			35		1.36	1.31	1.16	
	7/1101			37		1.81	2.03	1.65	
	8/1102			37		1.41	1.98	1.10	
7/12	1/1103			33		1.81	1.70	2.17	
	2/1104			33		1.55	1.68	1.79	
	3/1105			37		1.34	1.37	1.19	
	4/1106					1.60	1.55	0.53	
	5/1107					1.64	1.00	0.85	
	6/1108					1.06	0.74	0.41	
	7/1109					1.27	0.87	0.86	
	8/1110	F-101	051°	37	1.5	1.15	—	1.00	No Record

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
7/13	1/1111	F-101	051°	33	1.5	1.75	1.68	1.92	
	2/1112			33		2.12	1.87	1.69	
	3/1113			35		1.75	1.55	0.87	
	4/1114					2.02	1.87	1.87	
	5/1115					1.52	1.96	1.00	
	6/1116					1.10	2.09	1.67	
	7/1117					2.49	1.63	1.58	
	8/1118			35		2.07	0.89	1.40	
7/14	1/1119			33		1.53	1.73	1.49	
	2/1120			33		2.06	1.73	1.11	
	3/1121			35		1.60	1.77	1.09	
	4/1122					1.51	1.36	1.62	
	5/1123					1.32	1.80	3.22	
	6/1124			35		2.80	1.47	1.97	
	7/1125			37		1.19	1.32	1.14	
	8/1126			37		2.38	1.54	0.84	
7/15	1/1127			33		1.82	1.34	1.47	
	2/1128			33		1.67	1.47	1.69	
	3/1129			35		2.12	1.88	3.31	
	4/1130					1.14	1.77	1.39	
	5/1131					2.72	1.99	1.65	
	6/1132			35		2.62	2.23	1.08	
	7/1133			37		3.34	2.10	2.19	
	8/1134			37		1.57	1.23	1.15	
7/16	1/1135			33		1.65	2.08	1.01	
	2/1136			33		1.77	2.08	1.80	
	3/1137			35		1.77	1.02	1.22	
	4/1138					1.93	2.06	0.99	
	5/1139					1.58	2.19	0.80	
	6/1140			35		2.42	1.43	0.81	
	7/1141			37		2.00	2.12	1.56	
	8/1142			37		1.82	2.92	1.43	
7/17	1/1143			33		1.49	1.87	2.14	
	2/1144			33		1.92	2.11	2.36	
	3/1145			35		1.33	1.48	2.02	
	4/1146					1.78	1.53	0.98	
	5/1147					1.28	1.57	1.75	
	6/1148			35		2.42	0.95	2.04	
	7/1149			37		1.85	2.15	1.25	
	8/1150			37		1.03	1.55	1.05	
7/18	1/1151	F-101		33	1.5	1.60	1.90	1.17	
	2/1152	F-106		31	2.0	1.53	1.08	1.11	
	3/1153	F-101		35	1.5	1.38	2.90	1.56	
	4/1154	F-106		33	2.0	1.51	1.23	0.90	
	5/1155	F-101		35	1.5	2.46	1.60	1.10	
	6/1156	F-106		29	2.0	1.56	2.06	1.24	
	7/1157	F-101		37	1.5	1.40	1.56	1.56	
	8/1158	F-106		29	2.0	1.67	1.26	0.96	
7/19	1/1159	F-101		33	1.5	1.89	1.26	1.13	
	2/1160	F-106		29	1.7	1.33	1.02	0.81	
	3/1161	F-101		35	1.5	2.07	1.84	1.47	
	4/1162	F-106		29	1.7	1.38	0.84	0.80	
	5/1163	F-101		35	1.5	3.15	1.28	0.87	
	6/1164			35		0.58	0.63	0.69	
	7/1165			37		2.18	1.54	1.06	
	8/1166	F-101	051°	37	1.5	1.10	1.28	1.61	

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
7/20	1/1167	F-101	051°	33	1.5	1.64	1.18	0.66	
	2/1168			33		2.24	1.53	1.12	
	3/1169			35		1.67	1.74	2.70	
	4/1170			35		1.18	1.59	0.69	
	5/1171			39		1.62	1.83	1.17	
	6/1172			39		1.69	1.68	2.06	
	7/1173			41	1.5	1.13	2.00	0.98	
	8/1174			41	1.6	2.46	1.96	1.35	
7/21	1/1175			39	1.5	1.43	1.36	1.55	
	2/1176			39		1.63	2.25	1.23	
	3/1177			41		1.61	1.30	0.77	
	4/1178					1.24	1.41	1.25	
	5/1179					1.22	0.82	1.12	
	6/1180			41		1.40	1.56	1.58	
	7/1181			43		1.31	0.54	0.35	
	8/1182			43		1.52	1.15	0.69	
7/22	1/1183			40		1.51	1.27	0.56	
	2/1184			40		1.12	1.51	1.06	
	3/1185			41		1.44	1.87	1.83	
	4/1186					—	1.33	1.08	No Record
	5/1187					1.42	1.25	1.47	
	6/1188			41		1.12	1.12	—	
	7/1189			43		1.07	1.18	1.96	
	8/1190			43		0.89	2.24	0.45	
7/23	1/1191			41		1.06	1.19	1.33	
	2/1192			41		0.82	1.04	0.95	
	3/1193			43		0.89	1.08	1.62	
	4/1194					1.07	1.02	0.88	
	5/1195					1.32	*	*	* No Boom
	6/1196			43		0.79	1.41	2.49	
	7/1197			45		0.50	0.91	*	
	8/1198			45		0.97	1.45	1.24	
7/24	1/1199			41		0.85	2.22	0.94	
	2/1200			41		0.77	1.45	1.28	
	3/1201			43		0.51	0.64	0.69	
	4/1202					0.72	1.39	1.37	
	5/1203					0.64	1.37	1.40	
	6/1204			43		0.81	0.88	1.00	
	7/1205			45		0.38	1.07	0.37	
	8/1206			45		1.08	3.29	0.78	
7/25	1/1207			39		1.10	1.28	1.02	
	2/1208			41		1.03	1.43	1.30	
	3/1209			43		0.97	1.34	1.02	
	4/1210					0.82	1.30	1.13	
	5/1211					1.35	1.06	1.64	
	6/1212			43		0.80	0.87	1.09	
	7/1213			45		1.31	0.97	0.40	
	8/1214			45		0.63	1.82	1.00	
7/26	1/1215			39		0.97	1.28	1.24	
	2/1216			41		0.80	1.19	1.24	
	3/1217			43		0.88	1.32	1.34	
	4/1218			43		1.03	1.45	1.38	
	5/1219			35		1.41	1.08	0.96	
	6/1220			35		1.09	2.86	1.22	
	7/1221			45		0.59	1.28	0.55	
	8/1222	F-101	051°	45	1.5	1.09	1.36	0.94	

STRUCTURAL RESPONSE TO SONIC BOOMS

APPENDIX C1

WEEKLY SUMMARY OF FREE GROUND OVERPRESSURES
Oklahoma City - 1964

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Date 1964	Flight Number	Aircraft	Course	Alt. (1000')	Mach No.	TH #1	TH #3	TH #4	Remarks
7/27	1/1223	F-101	051°	39	1.5	0.84	0.88	0.56	
	2/1224			39		0.98	1.16	1.09	
	3/1225			41		0.91	1.14	0.93	
	4/1226					1.04	1.29	2.50	
	5/1227					x	x	x	*No Boom
	6/1228					0.64	1.35	1.35	
	7/1229					1.04	1.18	1.44	
	8/1230			41		1.20	1.06	1.34	
7/28	1/1231			39		0.93	1.35	1.45	
	2/1232			39		0.82	0.96	1.97	
	3/1233			41		0.91	1.44	1.75	
	4/1234					0.86	1.66	0.97	
	5/1235					2.36	1.52	1.05	
	6/1236					1.02	1.26	0.95	
	7/1237					1.10	1.09	—	No Record
	8/1238			41		1.39	—	1.21	
7/29	1/1239			39		—	1.41	0.65	
	2/1240			39		1.00	1.17	0.92	
	3/1241			39		1.06	2.01	1.66	
	4/1242			41		1.00	1.30	1.31	
	5/1243					1.32	1.39	1.57	
	6/1244					0.79	1.17	1.73	
	7/1245			41		1.06	1.32	1.47	
7/30	1/1246			39		1.45	1.41	1.15	
	2/1247			41		1.24	1.71	1.91	
	3/1248					1.45	1.36	1.40	
	4/1249					—	1.88	1.11	
	5/1250			41		1.27	1.04	1.68	
	6/1251			43		1.62	1.43	2.21	
	7/1252			43		1.47	1.21	1.34	
	8/1253	F-101	051°	45	1.5	0.98	1.23	1.32	